

# **Appendix J**

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## **Responses to Comments on the Draft EIS**

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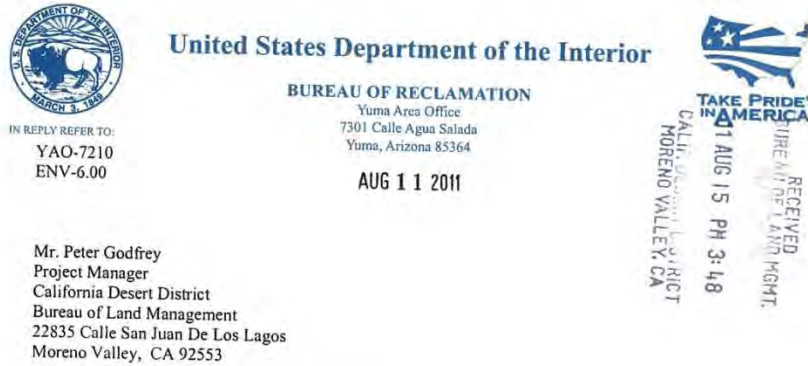
## **Comments and Responses**

### **Federal Agencies**



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**FA1-1.** Comment noted.



Subject: West Chocolate Mountains Renewable Energy Evaluation Area (REEA) – Draft Environmental Impact Statement (DEIS)

Dear Mr. Godfrey:

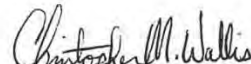
The Bureau of Reclamation has reviewed the subject DEIS dated June 2011, and offers the following comments. Additionally, Reclamation provided comments on the administrative draft EIS on April 22, 2011.

**FA1-1**

The DEIS identified 1,800 acres of Reclamation withdrawn land in the REEA near the Coachella Canal. As the DEIS states in Section 3.12.3, page 3-128, these lands will not be available for geothermal leasing, or solar or wind projects because they continue to support the ongoing operations and maintenance of the Coachella and East Highland Canals. Any proposed actions within the REEA that may impact Reclamation land and/or facilities should be coordinated with our office.

Thank you for the opportunity to review and comment on the DEIS. If you have any questions, please direct them to Ms. Jill S Dale, Environmental Planning and Compliance Group Manager, at [jdale@usbr.gov](mailto:jdale@usbr.gov) or by telephone, at 928-343-8127.

Sincerely,

  
Christopher M. Wallis, Chief  
Resource Management Office



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION IX**

**75 Hawthorne Street  
San Francisco, CA 94105-3901**

**SEP 28 2011**

Mr. Peter Godfrey  
California Desert District Office, BLM  
22835 Calle San Juan De Los Lagos  
Moreno Valley, California 92553

Subject: Draft Environmental Impact Statement and California Desert Conservation Area Plan Amendment for the West Chocolate Mountains Renewable Energy Evaluation Area, Imperial County, California [CEQ# 20110199]

Dear Mr. Godfrey:

The U.S. Environmental Protection Agency has reviewed the Draft Environmental Impact Statement and California Desert Conservation Area Plan Amendment for the West Chocolate Mountains Renewable Energy Evaluation Area, Imperial County, California. Our comments are provided pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508) and our NEPA review authority under Section 309 of the Clean Air Act.

EPA strongly supports the development of renewable energy resources, as recommended in the Energy Policy Act of 2005, provided that projects are well planned and suitably located to minimize adverse environmental impacts. Accelerating the pace of development will help the U.S. meet its energy demand, create new jobs, reduce our dependence on imported oil, and provide for increased energy security while reducing greenhouse gases. To avoid unnecessary delays, it is critical that potential conflicts be identified and avoided to the extent possible from the outset. To that end, EPA provided extensive scoping comments on March 12, 2010, which included detailed recommendations regarding the overall scope and content of the EIS, as well as recommendations on NEPA-related topics including purpose and need, range of alternatives, biological resources and habitat, water resources, and other areas of concern.

Based on our review of the DEIS, we recognize that the Bureau of Land Management is striving to create a more refined process for guiding the development of renewable resources within the WCM REEA. BLM proposes to do this by identifying lands that may be suitable for renewable energy development; outlining the general type of development allowed; and implementing a competitive process for solar applications that favors water-efficient solar technologies and projects that minimize potential conflicts to military airspace operations. We strongly support these overarching goals and commend BLM for demonstrating this initiative on the project.

We have rated the DEIS as *Environmental Concerns – Insufficient Information* (EC-2). Please see enclosed "Summary of EPA Rating Definitions." An "EC" signifies that EPA's review of the DEIS has identified environmental impacts that should be avoided in order to provide adequate protection for the environment. A "2" rating signifies that the DEIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment. In

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the enclosed detailed comments, we have identified issues of concern, along with specific recommendations for your consideration.

Although we support the overarching goals of the project, the EPA is concerned about potential impacts to aquatic, biological, and cultural resources within the WCM REEA, and the need to mitigate for such impacts. Complete inventories of aquatic, cultural, or biological resources have not been conducted, and the few studies that have been conducted have been limited in scope. We are particularly concerned about the potential impact to wetlands, including waters of the United States, as approximately 2,286 acres of U.S. Fish and Wildlife Service designated wetlands were identified in the WCM REEA. Impacts to these wetlands and drainages could be of a magnitude that is a significant environmental concern, especially within an arid ecosystem. In addition, some portions of the REEA are likely located in areas of high flood risk. We would like to see clearer designations of such areas, including areas that will be excluded, as well as more specific commitments to avoid and minimize impacts. The Final Environmental Impact Statement should include a robust discussion of all avoidance and mitigation measures proposed for the WCM REEA and an outline of the requirements for a compensatory mitigation plan.

The EPA is also concerned about the availability of water resources within the Imperial Valley. According to the DEIS, the Imperial Irrigation District has allocated 25,000 acre-feet/year for non-agricultural projects within its service area. Some sections of the REEA, however, are located outside of the IID service area and would not be eligible to receive any water from the IID. In addition, it is not clear how much of the 25,000 AF/y is available for renewable energy development, or how long it will be available.

We have concerns about the inconsistent approach BLM utilizes in dealing with the Reasonably Foreseeable Development scenario, particularly for solar development. Within the *Alternatives Analysis*, BLM describes a maximum RFD scenario unique to each alternative. Within the *Environmental Consequences* section, however, BLM defines a *new* RFD scenario, based on typical project sizes, and then uses that scenario as the basis for calculations pertaining to resource impacts. Interspersed in this analysis, however, are calculated values for acreages of land disturbed by development, and these are based on the maximum RFD scenario. In short, the EIS does not utilize the 'RFD scenario' consistently throughout the document, which leads to great confusion as the reader tries to understand the association between the various RFD scenarios and the calculated impacts. It is important that BLM correct this fundamental error so that the reader can understand and evaluate the potential impacts associated with each of the alternatives. EPA recommends that BLM define a reasonable scenario for solar development specific and appropriate to each alternative, and then utilize that scenario consistently throughout the document.

EPA appreciates the opportunity to review this DEIS, and we are available to discuss these comments with you further. Please send one hard copy of the FEIS and two CD ROM copies to this office at the same time it is officially filed with our Washington D.C. Office. If you have any questions, please contact me at 415-972-3521, or contact Ann McPherson, the lead reviewer for this project. Ann can be reached at 415-972-3545 or [mcpherson.ann@epa.gov](mailto:mcpherson.ann@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'Kathleen Martyn Goforth', written in a cursive style.

Kathleen Martyn Goforth, Manager  
Environmental Review Office (CED-2)

Enclosures: EPA Summary of Rating Definitions  
EPA Detailed Comments

**SUMMARY OF EPA RATING DEFINITIONS\***

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

**ENVIRONMENTAL IMPACT OF THE ACTION**

***"LO" (Lack of Objections)***

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

***"EC" (Environmental Concerns)***

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

***"EO" (Environmental Objections)***

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

***"EU" (Environmentally Unsatisfactory)***

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

**ADEQUACY OF THE IMPACT STATEMENT**

***"Category 1" (Adequate)***

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

***"Category 2" (Insufficient Information)***

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

***"Category 3" (Inadequate)***

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

\*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.



U.S. EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT AND CALIFORNIA DESERT CONSERVATION AREA PLAN AMENDMENT FOR THE WEST CHOCOLATE MOUNTAINS RENEWABLE ENERGY EVALUATION AREA, IMPERIAL COUNTY, CALIFORNIA, SEPTEMBER 28, 2011

**Water Resources**

*Wetlands Protection*

According to the Draft Environmental Impact Statement, there are 2,286 acres of wetlands present in the West Chocolate Mountains Renewable Energy Evaluation Area. The U.S. Environmental Protection Agency is concerned that land disturbance activities may impact these wetlands. Scoping comments were submitted recommending that the REEA exclude all high value habitats associated with the Salton Sea, Salton Sea shoreline, and any wetland or riparian habitat associated with natural drainages between Bombay Beach and the Imperial State Wildlife Area due to its importance for a number of listed and declining bird species and endangered pupfish (pg. 2-53). The DEIS states that the Bureau of Land Management eliminated alternate BLM locations with significant environmental concerns, but does not elaborate on whether any of these areas were avoided. Avoiding such features is of crucial importance to the protection of aquatic resources within the WCM REEA. Programmatic design features should be established to protect these valuable resources from direct and indirect impacts.

FA2-1

*Recommendations:*

The Final Environmental Impact Statement should clarify whether high value habitats associated with the Salton Sea, as well as wetland and riparian habitat associated with natural drainages, have been excluded from the WCM REEA. The EPA recommends that BLM exclude such areas from development and apply an effective buffer around them to limit potential impacts from development.

FA2-2

The FEIS should programmatically exclude authorization of renewable energy development in wetlands and microphyll woodlands.

FA2-3

The FEIS should establish enforceable, programmatic design features for wetland protection that would be applied to all renewable energy projects.

FA2-4

*Compliance with Clean Water Act Section 404*

Pursuant to Section 404 of the CWA, discharge of dredged or fill material to waters of the United States (waters of the U.S., jurisdictional waters, waters) requires a Section 404 permit issued by the U.S. Army Corps of Engineers. In order to comply with the 404(b)(1) Guidelines, the applicant must determine the geographic extent of waters and comprehensively evaluate a range of alternatives to ensure that the "preferred" alternative is the Least Environmentally Damaging Practicable Alternative. Identification of the LEDPA is achieved by performing an alternatives analysis that estimates the direct, indirect, and cumulative impacts to jurisdictional waters resulting from a set of on- and off-site project alternatives. The alternatives analysis that is required for a Section 404 permit differs from the alternatives analysis required under the National Environmental Policy Act. The Section 404 alternatives analysis must include on-site and off-site alternatives, which may include private land, BLM-administered land, and/or disturbed sites. Nevertheless, coordination of the NEPA and CWA Section

**FA2-1.** The analysis in this DEIS examined constraints to the development of geothermal, solar, and wind energy (Section 2.1). These constraints included the following:

- Adequate water supply;
- Presence of NRHP eligible cultural resources;
- Presence of T&E species or critical habitat;
- Presence of avian nesting habitat;
- Presence of wildlife corridors;
- Proximity to airports;
- Electrical service; and
- Proximity to DoD/military low fly zones.

For the FEIS, setbacks or buffers have been added around wetland and riparian areas and hydrologic features. While these buffers and set back were driver by wildlife protections, we presume that they will also benefit (or afford protection to) the aquatic feature. BLM has also added several resource protection stipulations that will avoid impacts to sensitive resources (See Section 2.2.6.5). In light of comments received, the BLM considered alternative development cap percentages, and protections for wildlife habitat, soils, and vegetation. The BLM may, as appropriate, attach these stipulations to all leases and will require site-specific studies to further characterize sensitive resources and identify site-specific mitigation measures.

**FA2-2.** The DEIS included maps reflecting the NWI wetlands dataset. In the FEIS, stipulations in Section 2.2.6.5 have been proposed that require a 300-foot buffer around riparian/ wetlands features and artificial surface waters and associated wetlands (distance from the edge of the water body) for renewable energy projects that would be developed in the West Chocolate Mountains REEA. Additionally, stipulations in Section 2.2.6.5 have been

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proposed on riparian habitat/wetlands that require a 300-foot buffer east of the Coachella Canal for Alternatives 3-6. Any exclusion area or “buffer” for a water feature would use the “ordinary high water mark” as defined by the USACE. Project specific surveys will also be required to identify constraints to development (i.e., wetlands and riparian habitat) and to ensure protection of valuable aquatic resources in the REEA.

Refer to Response to Comment FA2-1.

**FA2-3.** Refer to Response to Comment FA2-2.

**FA2-4.** Refer to Response to Comment FA2-2.



404 processes can help to avoid unnecessary delays in environmental review, approval, and permitting of proposed projects.

*Recommendations:*

**FA2-5**

The FEIS should clarify that compliance with CWA Section 404 should be addressed as early in the Right-of-Way application process as possible to ensure that proposed projects are permissible under the CWA.

**FA2-6**

The FEIS should discuss the subsequent environmental documentation that would be required if jurisdictional waters are present on a proposed project site. For example, the FEIS should state that, if the developer needs a CWA Section 404 permit, a project-level EIS, rather than an Environmental Assessment, may be required.

*Conceptual Mitigation Plan*

**FA2-7**

If unavoidable impacts are anticipated, a conceptual mitigation plan is also needed that identifies the following: 1) an assessment of the functions and values of the wetlands that would be impacted; 2) the conceptual approach on how mitigation site selection will be carried out; 3) the number of acres of proposed mitigation; and 4) a basic discussion of the type of mitigation that will take place. Note: This is a subset of the "12 elements" of the mitigation plan in the Mitigation Rule that EPA believes can be appropriately defined during the programmatic NEPA stage (40 CFR 230).

*Compensatory Mitigation*

**FA2-8**

The DEIS does not present any discussion or proposal on compensatory mitigation for aquatic resource impacts. EPA cannot discern the extent of loss and degradation to aquatic resources at this programmatic level; therefore, addressing compensation for impacts to aquatic resources is difficult. Nonetheless, compensatory mitigation should be discussed. The DEIS states that drainage crossings will be designed to accommodate estimated peak flows and ensure that natural volume capacity can be maintained throughout construction and upon post-construction restoration (pg. 3-14). This does not, however, address compensation for the loss of acreage, as well as other functions and support services provided by waters.

*Recommendation:*

EPA recommends the development of a comprehensive mitigation strategy to compensate for unavoidable impacts to waters. This strategy should meet all requirements of the *Compensatory Mitigation for Losses of Aquatic Resources; Final Rule* (40 CFR Part 230, subpart J of the Guidelines).

*Protection should apply to all Aquatic Resources, regardless of Jurisdiction*

It is not clear what level of protection, if any, would be afforded to waters not subject to CWA Section 404 that are, nonetheless, integral to desert ecosystems and hydrology. To effectively protect and manage the desert's fragile and invaluable ecosystems, the distribution of aquatic resources on a project site – regardless of CWA jurisdictional status – should be fully disclosed by an applicant in its ROW application for renewable energy development on public lands. If BLM's approval criteria were

2

**FA2-5.** The Biological Resources and Water Supply and Quality section in Appendices I-A2 and I-A12 has been revised to reflect that project specific biological resource field studies must be conducted after development applications are accepted. It is assumed that all streams or aquatic resources located onsite within the West Chocolate Mountains REEA are jurisdictional, should be considered provisionally restricted from development, and the BLM would accept USACE mitigation requirements for permitting projects. Some of these streams may flow directly into the Salton Sea or into canals and drainages prior to entering the Salton Sea; a Section 404 permit would likely be required for any type of discharge of dredge or fill material in ephemeral streams within the West Chocolate Mountains REEA. The USACE would restrict from development all jurisdictional waters from high water mark to high water mark and impose strict conditions on the use of any lands within (such as road crossings). All washes identified by the USGS National Hydrography Dataset within the West Chocolate Mountains REEA would be expected to have restrictions on development and/or significant stipulations based on Jurisdictional Delineation efforts by the USACE. Jurisdictional Delineation efforts for Section 404 of the CWA (consultation with USACE) would begin prior to publication of an NOI. Preliminary Jurisdictional Determinations have been suggested by the USACE to expedite the determination process. Obtainment of a Jurisdictional Determination by the applicant will establish the USACE's jurisdiction over aquatic resources on site. Washes would be a significant issue to deal with because the USACE Section 404 permitting requirements. Avoidance of project development in wetlands and setback stipulations would be strictly enforced.

**FA2-6.** In Chapter 1 and 2, the FEIS reflects the need for project-level NEPA documentation, the level of which to be determined based on the project itself, and the potential for

*Continued from previous page.*

significant impacts.

**FA2-7.** Comment noted. Figures 3.5-1 and 3.5-2 show wetlands and washes identified in the USGS National Hydrography Dataset (NHD) and the USFWS National Wetlands Inventory (NWI) that are within the West Chocolate Mountains REEA. The FEIS has been revised to state the following:

“The Salton Sea is the closest traditional navigable water to the West Chocolate Mountains REEA. It is assumed that all streams or aquatic resources located onsite within the West Chocolate Mountains REEA are jurisdictional, should be considered provisionally restricted from development, and the BLM would accept USACE mitigation requirements for permitting projects. Some of these streams may flow directly into the Salton Sea, or into canals and drainages prior to entering the Salton Sea; a Section 404 permit is likely required for any type of discharge of dredge or fill material in ephemeral streams within the West Chocolate Mountains REEA. The USACE would restrict from development all jurisdictional waters from high water mark to high water mark and impose strict conditions on the use of any lands within (such as road crossings). All washes identified by the USGS National Hydrography Dataset within the WCM REEA would be expected to have restrictions on development and/or significant stipulations based on Jurisdictional Delineation efforts by the USACE. Jurisdictional Delineation efforts for Section 404 of the CWA (consultation with USACE) would begin prior to publication of an NOI. Preliminary Jurisdictional Determinations have been suggested by the USACE to expedite the determination process. Obtainment of a Jurisdictional Determination by the applicant will establish the USACE’s jurisdiction over aquatic resources on site. Washes would be a significant issue to deal with because the USACE Section 404 Permitting Requirements.

*Continued from previous page.*

Avoidance of project development in wetlands and setback stipulations would be strictly enforced.”

Additionally, stipulations in Section 2.2.6.5 have been added to Alternatives 3 through 6 to specifically state that all artificial open drainages (canals, drains, ditches, etc.) shall have a buffer of 300 feet on either side of the feature.

**FA2-8.** In the FEIS, BLM has included specific stipulations to protect water and aquatic resources. These include setbacks from water features, riparian and wetland areas, soils and protections for groundwater (including the requirement for developers to prepared a water supply assessment).

Appendix I-A12 of the FEIS has been revised to state the following:

Soils, Drainage, Erosion, Stormwater, and Flooding: “The expectation of an acceptable surface Hydrology Report and that roads, structures, and other project accoutrements will be designed to withstand a 100-year storm event, at a minimum.”

Water Supply and Quality Paragraph 4: “Groundwater withdrawal should not exceed recharge to the reasonably defined sub-basin from which it is produced.”

modified to incentivize avoidance of aquatic resources, e.g. by prioritizing review of, and giving preference to, projects on sites selected for minimal presence of aquatic resources, BLM could programmatically shift important renewable energy development toward more disturbed lands with fewer natural resources conflicts.

**Recommendations:**

**FA2-9**

The FEIS should clarify which water bodies will be buffered out 100 feet, and whether this includes ephemeral washes.

**FA2-10**

The FEIS should specify that placement of project components is prohibited in water bodies, including ephemeral washes and within the 100-foot buffer. This requirement should be made compulsory for all projects to ensure consistency and accountability in protecting aquatic resources whenever and wherever it is practicable to do so.

**FA2-11**

EPA recommends that BLM's approval criteria be modified to incentivize avoidance of aquatic resources, e.g. by prioritizing review of, and giving preference to, projects on sites selected for minimal presence of aquatic resources.

**Floodplain Management and Geologic Flood Hazard Class Areas**

The DEIS states that floodplains of many of the drainages in the WCM REEA are substantial, and flooding may occur in these areas during infrequent precipitation events (pg. 4-79). Flood hazards also exist along the upstream side of State Road 111 and along portions of the Coachella and East Highline canals because they are oriented in a northwestern direction and intersect natural drainages flowing to the southwest (pg. 3-55).

The DEIS does not provide information on geologic flood hazard class areas within the WCM REEA. Flood hazards associated with alluvial fans are particularly hard to characterize using conventional methods. Flooding on active alluvial fans may consist of high velocity, sediment laden floodwater that may follow multiple paths simultaneously; flow paths may shift position during even low or moderate flows. Flooding can also occur as broad, largely unconfined shallow flow swaths that inundate large areas. These areas should be avoided if at all possible.

**Recommendations:**

**FA2-12**

The FEIS should provide a detailed description of the current floodplain in the WCM REEA and identify those areas that are most at risk.

**FA2-13**

EPA recommends that new geologic flood hazard class maps be prepared for those areas within the WCM REEA containing alluvial fans, so that the areas of highest risk can be avoided if possible<sup>1</sup>.

<sup>1</sup> See *Using Geology to Improve Flood Hazard Management on Alluvial Fans - An Example from Laughlin, Nevada*, Journal of the America Water Resources Association, Vol. 41, Issue 6, pgs. 1,431-1,447, December 2005.

**FA2-9.** The hydrologic features within the REEA were buffered out to 300 feet in the FEIS to determine which portions of the REEA were available for solar development. BLM referenced that USGS 1:100,000 scale hydrological data used for the analysis. Delineation of wetlands and waters of the U.S. would be conducted at finer scale and on a project-by-project basis.

**FA2-10.** Refer to Responses to Comments FA2-7 and FA2-8.

**FA2-11.** BLM IM 2011-061 gives BLM the ability to prioritize projects based on environmental concerns. This IM requires two preapplication meetings, invites other agencies and allows BLM to prioritize projects based on environmental concerns. The FEIS has been revised to state that project construction designs would need to meet the 100-year flood event; this would serve as a dis-incentive and discourage developers from building within washes. BLM will require an acceptable surface hydrology report that identifies affected sub-basin rainfall, 10-25-100 flood events, impacted floodplains, and other pertinent information.

**FA2-12.** Appendix I-A12 of the FEIS has been revised to state "The expectation of an acceptable surface hydrology report and that roads, structures, and other project accoutrements will be designed to withstand a 100 year storm event."

**FA2-13.** Refer to Response to Comment FA2-12.



*Estimates of Water Consumption for Solar Energy Development are in Error*

The DEIS includes estimates for water consumption associated with geothermal, solar, and wind development, but the numbers used for solar development appear to be erroneous. For example, the DEIS estimates operational water needs under Alternative 3 to be up to 0.05 acre-feet per year per megawatt for photovoltaic systems and 4.5 to 14.5 AF/y/MW for solar troughs (pg. 4-91). EPA concurs with the operational estimates for PV, but notes that the operational estimates for concentrated solar power are valid for wet cooling,<sup>2</sup> not dry cooling. Dry cooling systems use approximately one tenth the water<sup>3</sup> of wet cooling system, resulting in ranges from 0.45 – 1.45 AF/y/MW.<sup>4</sup>

FA2-14

FA2-15

The numbers used to represent operational water needs associated with both PV and CSP appear to be grossly underestimated in Alternatives 3 and 6. For example, the DEIS states that operational water demand could be up to 15 AF/y – over the 30 year lifespan, water demand could be up to 450 AF (pg. 4-91). According to EISs that we have reviewed, a 500 MW dry-cooled, parabolic trough power plant would require about 400 AF/y of water<sup>5</sup> for operational use. Full build out of 2,696 MW (parabolic troughs) would require up to 2,156 AF/y – and over a 30-year period, operational water estimates would sum to 64,680 AF. Using the appropriate numbers for PV, we estimate that one 50-MW PV plant would require about 2.5 AF/y of water for operational use. Full build out of 5,540 MW would require 277 AF/y – and over a 30-year period, operational water estimates for PV would sum to 8,310 AF.

FA2-16

The numbers used to represent water use associated with construction for both PV and CSP technologies also appear to be grossly underestimated in Alternatives 3 and 6. For example, the DEIS states that construction water needs for PV and CSP under Alternative 3 could be up to 2.26 AF/y (pg. 4-90); however, in other EISs that we have reviewed, a single 500 MW dry-cooled, parabolic trough power plant is estimated to require about 1,950 AF of water<sup>6</sup> for construction – full build out of 2,696 MWs would require 10,514 AF. Furthermore, a 400 MW PV plant is estimated to require about 600 AF of water<sup>7</sup> for construction – likewise, a 50 MW PV plant would require about 75 AF – and the construction of 5,540 MWs of PV would require about 8,310 AF.

FA2-17

*Recommendations:*

The FEIS should revise all estimates of water consumption associated with solar energy development. Errors are found on pages 4-90, 4-91, 4-95, and 4-96. In addition, errors are also found in the Water Use section of the Cumulative Impacts Analysis (pgs. 4-312, 4-313, and Table 4.20).

FA2-18

EPA recommends compiling these data in table format using the following values: 25-50 and 250-500 MWs PV, 25-50 and 250-500 MWs concentrated PV, 250-500 MWs parabolic trough (dry cooling), and maximum Reasonably Foreseeable Development scenarios (5,540 MW PV and 2,696 MW parabolic trough). Such a table would illustrate the range of values that may be

<sup>2</sup> See the Draft Programmatic EIS for Solar Energy Development in Six Southwestern States, December 2010, pg. 3-4.

<sup>3</sup> See the Draft Programmatic EIS for Solar Energy Development in Six Southwestern States, December 2010, pg. 3-4.

<sup>4</sup> Operational water use for parabolic troughs (100-400 MW) using dry cooling is estimated at 0.2 – 1.0 AF/y/MW according to the Draft Solar Programmatic EIS (December 2010).

<sup>5</sup> See the Final EIS for the Amargosa Farm Road Solar Energy Project, October 2010, pg. 2-25.

<sup>6</sup> See the Final EIS for the Amargosa Farm Road Solar Energy Project, October 2010, pg. 2-28.

<sup>7</sup> See the Final EIS for the Silver State Solar Energy Project, September 2010, pg. 2-38.

**FA2-14.** Comment noted. While it is true that dry cooling requires far less water than wet cooling technology, it is not a viable option in the REEA because of ambient air temperatures, especially during the peak season (summer). For most concentrating solar power (CSP) technologies, the heat transfer fluids used in the heat exchange process must be cooled sufficiently after use for greatest efficiency. For this reason, dry cooling was eliminated as a likely method for CSP projects in the REEA. New technologies are being developed which may reduce cooling water requirements for future CSP projects; these and current technologies are described in Appendix F of the Solar Energy Development Programmatic EIS (BLM 2011).

**FA2-15.** Water use assumptions are consistent with the water use assumptions found in Table 3.1-1 in the Supplemental Draft Solar Programmatic EIS (BLM 2011).

**FA2-16.** Refer to Response to Comment FA2-15.

**FA2-17.** Refer to Response to Comment FA2-15.

**FA2-18.** In Section 2.1.2, the FEIS has been modified to incorporate a data table (Table 2-1) that illustrates the water consumption for the variety of possible solar plants. Text was added to the FEIS explaining that a range of water use requirements were considered regarding PV and CSP project development.

encountered for solar energy development in the WCM REEA. References for values used to calculate water use should be provided. Note: Optimum plant size for parabolic trough projects is estimated to be 250-350 MWs – so using a smaller number, such as 250 MW, would also be reasonable for this technology.

*Surface Water Availability*

According to the DEIS, the majority of water use in the basin is supplied by imported Colorado River water (pg. 3-61). At the time the DEIS was written, the Imperial Irrigation District was preparing an Integrated Regional Water Management Plan that would determine a water allocation for renewable energy resources within the service area, and implementation of the IRWMP was expected in mid-year 2011. In the interim, the IID promulgated the Interim Water Supply Policy, which allocates 25,000 AF/y for non-agricultural projects. Given that the IID is the primary water provider in the region and that renewable energy projects may require substantial amounts of water for construction and operations, IID's allocation could be a major constraint to development (pg. 2-2). In addition, some portions of the WCM REEA are outside of the IID water service area and would not be eligible to receive water from the IID (pg. 2-2).

*Recommendations:*

**FA2-19**

The FEIS should identify what portion of the 25,000 AF/y designated for non-agricultural use is currently available for renewable energy use.

**FA2-20**

The FEIS should provide an update on when the IRWMP is expected to be completed and the designated water allocation for renewable energy resources, if that information is available.

**FA2-21**

The FEIS should include a map illustrating the IID water service area and identify those sections of the REEA located outside the boundary that would be ineligible to receive IID water.

*Groundwater Availability*

EPA is concerned about the long-term availability of groundwater in the WCM REEA, considering the quantities needed for the maximum RFD scenario and the potential impacts associated with pumping groundwater in this area. Where surface water bodies, including springs, are connected, lowering the water table may result in reduced or eliminated surface flows in springs or rivers. Surface water impacts may include reduction of flow volume and duration in some seasonal water courses, as well as permanent water sources. Lowering of the water table may also cause other wells, such as those for domestic supply, to dry up and need to be drilled deeper, and may result in long term potential for subsidence. Lowering of the water table below the ability of plants to reach it can also result in significant impacts, such as changes in vegetation and increased erosion.

*Recommendations:*

**FA2-22**

The FEIS should clearly identify the quantity of groundwater withdrawal allowable in the WCM REEA, and describe impacts associated with lowering of the water table.

**FA2-19.** All 25,000 AF of water set aside for non-agricultural use is available for renewable energy use; however, the current balance of the IWSP is 23,591 AF. The IWSP is available on a first-come basis and only two contracts have been issued, to date, for four geothermal plants. Section 3.5.2.3 of the FEIS has been revised to reflect this.

**FA2-20.** The IRWMP is expected to be completed and adopted before November of 2012 and is designated for non-agricultural uses. The IID is committed to ensuring there is an adequate water supply for all current and future developments within the service area, subject to the usual reasonable and beneficial use standards. In Section 3.5.3.1, the FEIS has been revised to reflect this.

**FA2-21.** Comment noted. This figure has been added to the FEIS in Section 3.5.

**FA2-22.** A water supply assessment is typically required for all CEC projects per SB 610. The BLM will require a water supply assessment for all development projects in the West Chocolate Mountains REEA on BLM land, regardless of CEC jurisdiction. The water supply assessment must identify the specific localized sub-basins affected by the proposed project, estimated water recharge to those sub-basins, an estimated water balance, and feasible water sources that are sufficient to support the needs of the project. The quantity of groundwater that can be withdrawn for projects cannot be determined without site-specific information. The FEIS does, however, provide a general guideline, or definition, of a level of production that is unacceptable: overdraft conditions. This would need to be addressed through a water supply assessment prior to authorization of project water use. The FEIS has been revised to clearly state that production of groundwater shall not exceed the recharge rate of a reasonably defined local

*Continued from previous page.*

sub-basin.

In addition, Refer to Response to Comment FA2-8.



**FA2-23**

The FEIS should discuss whether it is economically feasible to use other sources of water, including wastewater or deep-aquifer water, for renewable energy development, particularly in areas that are outside the IID boundary, and, if so, describe the impacts of using such sources.

*Source of Water for Geothermal Development*

The DEIS states that water consumption associated with geothermal development could utilize up to 17,885 AF/y, but does not specify the source of water. It also states that it is likely that much of the required operational water needs could be supplied by local or regional groundwater (pg. 4-80), but another potential source could be imported surface water from the IID (pg. 4-89). Furthermore, the DEIS states that a study would be required to identify the potential impacts to the local aquifer associated with the injection of *imported groundwater* and the withdrawal and injection of geothermal fluid (pg. 4-77). Based on these statements, it is unclear whether there are viable sources of local or regional groundwater for geothermal development.

**FA2-24**

*Recommendation:*

The FEIS should disclose the anticipated source of water for geothermal development, including whether it is likely to be from the IID or local or regional aquifers. If the IID is likely the source, the FEIS should clarify why geothermal development would not be constrained by water usage, as is solar energy development, in the Preferred Alternative. If local or regional aquifers are likely the source, the FEIS should provide estimates for capacity, quality, and cost.

The DEIS states that there is the risk of significant aquifer drawdown on and offsite, and that this impact could be minimized or avoided by selecting water sources that are outside of drinking water protection zones or from sources where there is currently no competing use (pg. 4-90).

**FA2-25**

*Recommendation:*

The FEIS should specify the locations of water sources with no competing use in the WCM REEA.

*Additional Assessment of Water Resources Needed in WCM REEA*

The DEIS provides general information on the type and distribution of aquatic resources within the WCM REEA, as well as the Salton Sea. Aquatic features were identified using the U.S. Geological Survey National Hydrography Dataset and the U.S. Fish and Wildlife Service's National Wetland Inventory. Within the WCM REEA, 301 surface water features were identified, including 200 natural drainages and 101 artificial drainages, in addition to approximately 2,286 acres of USFWS designated wetlands (pg. 3-57). Although the NHD and NWI provide information at a gross screening level regarding the distribution of surface waters, the data do not adequately capture the reach and extent of waters of the United States across the WCM REEA. Additional information on the presence of aquatic resources within the study area, especially those that may be subject to federal jurisdiction under Section 404 of the Clean Water Act, would assist future developers in site selection and design and streamline future National Environmental Policy Act analyses.

**FA2-23.** Refer to Responses to Comments FA2-22 and FA2-8.

**FA2-24.** Groundwater production should be limited to a sustainable yield, not to exceed the recharge rate of a reasonably defined local sub-basin. Water used for renewable project development may also be drawn from the Colorado River or may be supplemented by the IID. Water production constraints are the same for all technologies: no overdraft conditions. If the water balance is not pushed into overdraft, it should be a sustainable system. The location and extent of each project will define what that quantity will be through evaluation of a water supply assessment.

**FA2-25.** Deep aquifer water would be addressed in each project water supply assessment on a case-by-case basis.



FA2-26

*Recommendations:*

EPA recommends that further analysis of aquatic resources be performed within the WCM REEA, including the identification of aquatic resources using aerial photography, existing mapping data available, and field verification. The results of such analysis should be included in the FEIS.

FA2-27

The FEIS should clearly explain the circumstances under which a formal site-specific jurisdictional delineation would be required and at what point in the project planning process it would be conducted.

*Direct, Indirect, and Cumulative Impacts for Water Resources*

FA2-28

The DEIS lacks a comprehensive assessment of the direct, indirect and cumulative impacts for water resources, deferring this assessment for site-specific analyses. As a result, the discussion falls short in disclosing the potential significant impacts associated with renewable energy development in the WCM REEA (pgs. 4-86 to 4-96). Although we recognize that this is a programmatic document, the analysis of impacts for each alternative is superficial and, at times, inconsistent. For example, in Section 4.5.3.1, the DEIS states that although 938 acres could be disturbed with the development of geothermal power, it is *unlikely* that the placement of aboveground structures would have a significant impact on surface hydrology within the REEA (pg. 4-79). In the next sentence, however, the DEIS states that impacts resulting from the placement of structures within or adjacent to ephemeral or perennial desert washes *could result* in significant hydrological impacts, including increased flooding frequency and intensity. Specific BMPs that would render such impacts unlikely are not identified. Finally, the DEIS concludes that the relatively small proportion of the REEA that could become impervious (less than 1.5%) due to geothermal development could contribute a *negligible increased risk* of flooding due to increased runoff (pg. 4-80).

FA2-29

In Section 4.5.3.2 (*Typical Impacts from Solar Energy Development*), the DEIS states that individual solar energy facilities have little impact on hydrology, although the construction of solar energy facilities on 84 percent of the WCM REEA acreage could significantly impact local hydrology (pg. 4-81). EPA disagrees with the statement that individual solar energy facilities have little impact on hydrology. EPA has evaluated 18 proposed solar projects in Region 9, ranging in size from 45 to 1,000 MWs. Even one project, if not well sited, can lead to significant impacts to aquatic resources. Potential impacts can be minimized by avoiding ephemeral or perennial desert washes and ensuring that adequate buffers, such as the 100-foot buffer from water features, are enforced.

Ephemeral and intermittent streams constitute over 81% of streams in the arid and semi-arid Southwest<sup>8</sup> and perform a diversity of hydrologic and biogeochemical functions that directly affect the integrity and functional condition of higher-order waters downstream. Healthy ephemeral waters with characteristic plant communities control rates of sediment deposition and dissipate the energy associated with flood flows. Ephemeral washes also provide habitat for breeding, shelter, foraging, and movement of wildlife. Many plant populations are dependent on these aquatic ecosystems and adapted to their unique conditions. The evaluation of these aquatic resources should not be discounted.

<sup>8</sup> See Internet address: <http://azriparian.org/docs/arc/publications/EphemeralStreamsReport.pdf>

**FA2-26.** Refer to Response to Comment FA2-5. In addition, in Appendix I-A, identification of aquatic resources using a combination of aerial photo interpretation, GPS field verification, and other methods would be required on the project level.

**FA2-27.** Refer to Responses to Comments FA2-2 and FA2-5.

**FA2-28.** Refer to Response to Comment FA2-2.

**FA2-29.** Hydrology will be impacted as little as possible with implementation of protective setbacks and a general restriction on production. Groundwater production should be limited to a sustainable yield, not to exceed the recharge rate of a reasonably defined local sub-basin. Water used for renewable project development may also be drawn from the Colorado River or may be supplemented by the IID. If the water balance is not pushed into overdraft, it should be a sustainable system.

Impacts to waters may be substantial and significant based on the magnitude of fill, lack of sufficient impact avoidance, and indirect and cumulative impacts to ephemeral waters on site and downstream to the Salton Sea, which is listed under CWA 303(d) as an impaired water body (nutrients, salinity, and selenium). The aquatic ecosystem may be dramatically altered by development associated with large-scale solar energy development through direct habitat loss and degradation, changes to hydrological processes, likely increase in the velocity and volume of stormwater flows, sedimentation, and a potential increase in the discharge of pollutants.

*Recommendations:*

FA2-30

The FEIS should provide a more detailed and comprehensive discussion regarding the extent of direct, indirect, and cumulative impacts to aquatic resources as a result of geothermal, solar, and wind energy development projects in the WCM REEA.

FA2-31

The FEIS should clarify the water features to which the 100-foot buffer will apply to, and this, specifically, includes ephemeral washes.

Generally, the DEIS splits up the impacts analysis for water resources for each of the alternatives into two distinct subsections, direct impacts from solar energy development and indirect impacts from solar energy development. The DEIS also uses another category, direct impacts from partial solar energy development. We are unclear what is meant when the DEIS splits up the impacts in these separate and distinct sections. In all three sections, the DEIS mentions that impacts could occur if up to 13,482 acres of CSP or 49,864 acres of PV were developed. We assume that the distinction is meant to capture the difference between the development of one 50 MW PV project and one 500 MW CSP project, as compared to what would happen if development proceeded at the maximum RFD scenario pace, but this needs to be stated more explicitly if that is the case.

*Recommendation:*

FA2-32

The FEIS should clarify the difference between direct and indirect impacts within the context of these separate and distinct sections, for each of the alternatives considered and for each of the resources evaluated.

**Air Quality**

*General Conformity*

The DEIS states that direct and indirect air emissions are not expected to exceed *de minimis* levels to trigger a Federal Conformity Determination (pg. ES-11). The information presented in Chapter 4, however, does not support this conclusion. According to the DEIS, annual emissions may exceed *de minimis* thresholds for NO<sub>x</sub> and PM<sub>10</sub> as a result of construction of each 50 MW geothermal power plant and well field (pg. 4-20) and each 45 MW wind farm (pg. 4-29). In addition, annual emissions may exceed *de minimis* thresholds for NO<sub>x</sub> as a result of concurrent construction of a 500 MW CSP plant and a 50 MW PV plant (pg. 4-26).

FA2-33

*Recommendation:*

The FEIS should revise the Executive Summary to state that some projects are likely to exceed *de minimis* levels and trigger a Federal Conformity Determination.

**FA2-30.** Comment noted. Local jurisdictions in the region are dealing with the issue of water drawn from these same sources for renewable project development. The Colorado River and IID water is typically used to support agriculture in Imperial County, leading to agricultural runoff which drains into the Salton Sea. Consequently, if water demand from multiple renewable projects results in a reduced quantity of water draining into the Salton Sea, it may lead to cumulative impacts that need to be addressed in the NEPA analyses for individual projects. These potential effects are possible but, due to uncertainty of the many variables involved, expected impacts are unknown.

**FA2-31.** Figure 3.5-1 (Surface Hydrology) shows the location of washes and other water bodies in the West Chocolate Mountains REEA. All project runoff from the REEA would flow into washes identified in the USGS NHD, including those shown on Figure 3.5-1, and into the Salton Sea. Fig. 3.5-1 has been revised, where appropriate, to include Salt Creek.

**FA2-32.** Comment noted. The FEIS has been revised to further clarify the difference between direct and indirect impacts posed by PV and CSP projects to water resources.

**FA2-33.** The executive summary will be revised to reflect that some projects are likely to exceed *de minimis* levels and trigger a federal Conformity Determination.



Tables 4.1-1 (pg. 4-8), 4.1-13 (pg. 4-20), 4.1-22 (pg. 4-26), and 4.1-25 (pg. 4-29) all include *de minimis* thresholds of 50 tons/year for VOCs. EPA notes, however, that these values are incorrect and should be revised to 100 tons/year.

FA2-34

*Recommendation:*

The FEIS should change the *de minimis* threshold for VOC from 50 tons/year to 100 tons/year for Tables 4.1-1, 4.1-13, 4.1-22, and 4.1-25.

EPA compared values in Table 4.1-23 (pg. 4-27), Table 4.1-24 (pg. 4-27), and Table 4.1-25 (pg. 4-29) with values in Table 1 (Summary of Daily Emissions – 45 MW Wind Energy Project; Appendix D) and Table 2 (Summary of Total Emissions – 45 MW Wind Energy Project; Appendix D). We were unable to confirm the values for NO<sub>x</sub>, PM<sub>10</sub> (total), PM<sub>10</sub> (exhaust), and PM<sub>10</sub> (fugitive dust) in Table 4.1-23, when compared with Table 1. We were also unable to confirm the values listed in Table 4.1-24 for NO<sub>x</sub>, PM<sub>10</sub> (total), PM<sub>10</sub> (exhaust), PM<sub>10</sub> (fugitive dust), and PM<sub>2.5</sub> (fugitive dust) when compared with Table 2. We were also unable to confirm the values for NO<sub>x</sub> and PM<sub>10</sub> in Table 4.1-25. Note that the NO<sub>x</sub> and PM<sub>10</sub> values are also utilized in Table 4.1-26.

FA2-35

*Recommendation:*

BLM should check the values mentioned above in Tables 4.1-23, 4.1-24, 4.1-25, and 4.1-26 as well as Table 1 and Table 2 in Appendix D and eliminate discrepancies. The FEIS should be updated accordingly.

**Environmental Justice**

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994) and the interagency Memorandum of Understanding on Environmental Justice and Executive Order 12898 (August 4, 2011) direct federal agencies to identify and address disproportionately high and adverse human health or environmental effects on minority and low-income populations, allowing those populations a meaningful opportunity to participate in the decision-making process. Guidance<sup>9</sup> by the Council on Environmental Quality clarifies the terms low-income and minority population (which includes American Indians) and describes the factors to consider when evaluating disproportionately high and adverse human health effects.

The DEIS states that this project would be constructed in a rural area where it would not physically alter any residential or commercial community. We note, however, that one unique community is located within the WCM REEA: Slab City. Slab City is a former military base that is now located on land officially owned by the State of California. As described in the DEIS, residents of Slab City include: 1) permanent residents who are in extreme poverty; 2) families who have a steady stream of income; 3) migrant farm laborers who live there seasonally; and 4) individuals who live there seasonally and are financially secure. EPA is concerned about this community because large-scale development of renewable resources in the WCM REEA will directly impact these residents. Impacts are likely to be considered adverse by those who live there. Actions to displace residents of Slab City would likely be

<sup>9</sup> Environmental Justice Guidance under the National Environmental Policy Act, Appendix A (Guidance for Federal Agencies on Key Terms in Executive Order 12898), CEQ, December 10, 1997.

**FA2-34.** The referenced tables have been updated with the accurate “de minimis” threshold for VOCs.

**FA2-35.** The referenced tables have been updated to accurately reflect data in Appendix D.

met with some resistance (pg. 3-189). Furthermore, negative effects associated with geothermal, solar, and wind development could disproportionately affect residents of this community, including minority and low-income groups, children, and the elderly (pg. 4-253). In addition, we note that children, in particular, have greater sensitivities to various environmental contaminants, including air pollutants. Construction emissions could exacerbate existing conditions, such as asthma, for children, the elderly and those with existing respiratory or cardiac disease.

*Recommendations:*

FA2-36

The FEIS should include a commitment to mitigate all adverse impacts to human health. Analysis of potential health impacts should take into consideration the greater sensitivity of children and the elderly to certain environmental stressors. All appropriate environmental, health and safety precautions should be carefully outlined and agreed upon before any construction starts.

FA2-37

Assessment of the project's impact on minority and low-income populations should reflect coordination with those affected populations, including residents of Slab City.

FA2-38

EPA recommends that BLM consider additional options that would limit development in and around the immediate vicinity of Slab City.

**Transmission Analysis**

*Transmission is a 'connected action' and should be thoroughly analyzed in the WCM REEA EIS.*

Access to electrical transmission facilities is a major factor in siting utility-scale energy facilities, and the availability of transmission capacity is an integral component of that access. Transmission issues should be resolved prior to the construction of any utility-scale energy facility. The DEIS states that corridors transverse the WCM REEA, but detailed information on existing lines and available capacity is not presented in the EIS (pg. 3-132). BLM does not appear to have taken a "hard look" at important issues such as the available capacity on existing lines, the costs associated with upgrading or building new transmission lines, environmental impacts of such actions, and the timing of new transmission and energy development projects. The development of transmission facilities or capacity would be a "connected action"<sup>10</sup> to the proposed action and, as such, should be addressed in greater detail in the FEIS. In the absence of a clear demonstration of adequate available transmission capacity to support development within the area covered by the WCM REEA, EPA believes that development of additional transmission access and/or capacity is likely to be needed to support such projects.

FA2-39

*Recommendation:*

The FEIS should provide additional information on transmission within the WCM REEA including: 1) available capacity on existing lines; 2) costs associated with building new transmission lines or upgrading existing infrastructure; 3) potential environmental impacts

<sup>10</sup> Connected actions are actions that are closely related and, therefore, should be discussed in the same impact statement. Connected actions include actions that cannot or will not proceed unless other actions are taken previously or simultaneously (CFR 1508.25).

**FA2-36.** This is a programmatic document that evaluates the potential impact of opening the West Chocolate REEA for geothermal leasing and wind and solar energy ROW; no specific development projects have been proposed in this EIS. The BLM is required to comply with state standards for public health and safety. Individual renewable energy development projects in the West Chocolate REEA would be bound by the regulations identified in Section 3.13 of the EIS. Additional project-specific environmental analysis would be conducted for individual projects proposed in the West Chocolate REEA, and would include analysis of potential health impacts to nearby sensitive receptors, particularly in Slab City. Appropriate mitigation measures would be drafted and approved by the BLM, on the basis of analysis conducted on a project-specific basis and prior to any on-the-ground construction activities in order to manage hazardous conditions and wastes at these developments. This would mitigate and minimize the potential for impacts related to human exposure.

**FA2-37.** See Section 4.17.4.3 for the assessment of socioeconomic impacts including residents of Slab City.

**FA2-38.** Slab City is situated three miles east of Niland, California. The community is located directly in the West Chocolate REEA and is the only true population concentration within the West Chocolate Mountain REEA boundary. The FEIS is a program level document that will be used by BLM to make planning decisions regarding development of renewable energy projects on federal lands only. No specific projects have been identified in or around Slab City in the FEIS. Any development in or around Slab City would require submittal of an application for review and approval by BLM or another lead agency (i.e., state or county) that has jurisdiction over the land prior to development.



associated with new transmission lines or upgrades; and 4) the timing and approximate cost of new transmission and energy development projects.

#### Reasonably Foreseeable Development Scenarios

*Identify those areas in the WCM REEA that have been excluded based on resource constraints.*

The DEIS utilizes various RFD scenarios to estimate the scale of potential development within the WCM REEA under a set of development possibilities (pg. 2-2). The DEIS states that the RFD scenarios were developed based on a number of factors including: 1) known or estimated resource potential (solar intensity, geothermal reservoir, wind speed); 2) known or estimated resource constraints (topography, critical habitat to threatened and endangered species, proximity to hydrologic features, groundwater resources); and 3) availability of land for surface occupancy (pg. ES-6; pg. 2-1). As evident from the text, acquired lands (Catellus lands) and Bureau of Reclamation lands, shown on figure 1-1, are not available for leasing or ROW applications. Although figures 2-2, 2-3, 2-4, and 2-5 clearly show potentially available resources, based on solar intensity and slope, it is unclear to us which lands, if any, were excluded on the basis of other resource constraints listed above.

#### Recommendation:

The FEIS should include maps that clearly illustrate areas within the WCM REEA that have been excluded based on known or estimated resource constraints – including critical habitat for threatened and endangered species, proximity to hydrologic features, and groundwater resources. If such features have not yet been identified, the FEIS should explain when such features will be identified and how this information will be incorporated into the WCM REEA.

#### Maximum RFD Scenario presented in the Alternatives Analysis – Further suggestions

According to the DEIS, the RFD scenarios were developed by BLM to provide a basis for analyzing environmental impacts resulting from future leasing and development of federal geothermal, solar, and wind resources within the WCM REEA (pg. 2-1). Alternative 3 utilizes a maximum RFD scenario that includes 3x50 MW geothermal power plants; some combination of solar power consisting of up to 5,540 MWs from PV systems, 2,696 MWs from parabolic troughs, and 1,498 MWs from dish engines or power tower technology; and a 45 MW wind farm. The Preferred Alternative (Alternative 6) emphasizes geothermal development, with moderate solar development (5,540 MW PV or 1,498 MW dish engine), and no wind. The DEIS applies ratios based on the proportion of BLM land within the REEA to the RFD scenarios to determine the potential scale of development. According to the DEIS, development levels are likely to be far lower than the maximum RFD scenarios, based on current site-level knowledge and available data on resource constraints in the REEA (pg. 2-13). We offer the following suggestions to improve the readability of this section in Chapter 2.

#### Recommendations:

Insert two columns in Tables 2-2, 2-3, and 2-5 to incorporate the corresponding MWs associated with BLM disturbance and total disturbance (pgs. 2-16, 2-17, and 2-21).

Verify the numbers used for acreages of BLM land that are available for solar energy development and ensure that these numbers are used consistently in the FEIS. The DEIS uses

**FA2-39.** The FEIS has been revised to reflect the status of transmission in the REEA. The analysis of timing and costs associated with upgrading existing transmission, building new transmission, and the environmental impacts are not available and beyond the scope of this Programmatic EIS. The West Wide Energy Corridor EIS identified corridors in the Western U.S. needed to transport energy from renewable energy projects to load centers.

**FA2-40.** Figures 2-1 through 2-6 has been added to the FEIS showing areas excluded from development. The FEIS used the best available data, such as information in the NHD and NWI. It should be noted that this is a course-scale data set and additional constraints may apply on a case-by-case basis.

**FA2-41.** Tables 2-2 (now Table 2-7) has been revised to show the size in MW in an additional column. Table 2-3 (now Table 2-10) provided the megawattage (45 MW) in the title of the table. Table 2-5 (now Table 2-15) has been revised to show the size in MW in an additional column.

**FA2-42.** The reference to allocated/developable solar acreage on page 2-16 was changed to 17,163 acres; however, 16,954 acres will still be used when referring to BLM disturbance for PV solar at 5% slope or less.

FA2-43

16,954 acres (pg. 2-16) and 17,163 acres (pg. 2-11; pg. 2-16; pg. 2-21). One of these numbers is likely incorrect.

Elaborate on the constraints used to determine acreages for total disturbance within Table 2-2. For example, the DEIS states that for concentrated solar power technologies, 13,480 acres are available for development. How did the National Renewable Energy Lab (or BLM) arrive at that number? Does it represent, specifically, 1% grade and some particular solar intensity?

The DEIS uses common ratios to assess the amount of land disturbance associated with solar energy development, including 5 acres/MW for solar troughs and 9 acres/MW for dish engine, power tower, and PV (pg. 2-4). The DEIS states that as many as 111 solar PV plants could be constructed concurrently with up to five CSP facilities (pg. 4-32). We note, however, that 111x50 MW PV plants would occupy approximately 49,950 acres and 5x500 MW CSP plants would occupy between 11,500 acres and 22,500 acres, respectively. It appears unlikely that 111 PV plants could be constructed concurrently with 5 CSP facilities.

*Recommendations:*

Revise the preceding statement to clarify that up to 111 solar PV projects could be constructed if all available land that is suitable for solar energy development in the WCM REEA is used for PV projects; otherwise, for every CSP plant that is constructed, there will be fewer acres available for PV projects.

FA2-45

Discuss the potential number of projects that could be built under the maximum RFD scenario in the *Alternatives Analysis* within Chapter 2.

*Definition of a new RFD Scenario in the Environmental Consequences Section – Consistent Use of the new RFD Scenario is Essential in order to Evaluate Potential Impacts*

At the beginning of Chapter 4, the DEIS states that the solar RFD scenario for Alternatives 3, 5, and 6 could develop either CSP or PV projects. Due to the wide range of solar development activities that could occur, analyses are based on the development of a 50 MW solar PV project and a 500 MW solar trough CSP project (pg. 4-5). EPA notes that this selection of projects (50 MW PV and 500 MW solar trough) may be suitable for analyses associated with Alternative 3 and Alternative 5, but it is inappropriate for Alternative 6, where competitive processing of solar energy applications would be constrained by water usage and potential conflicts to military airspace operations. In that case, only PV or dish technology would be appropriate.

Furthermore, the selected size for the newly defined solar RFD scenario (50 MW PV or 500 MW parabolic troughs) is *much smaller* than the maximum RFD scenario (5,540 MW PV or 2,696 MW parabolic trough project) discussed earlier in Chapter 2. In contrast, the newly defined RFD scenario for geothermal and wind energy is the *same* as the maximum RFD scenario defined earlier. To further complicate matters, the DEIS does not use the newly defined solar RFD scenarios *consistently* throughout Chapter 4. For example, in Section 4.17.4.6 (Alternative 6), the partial build-out of the solar RFD scenario is assumed to be one 15-MW solar PV plant and one 150-MW solar trough power plant (pg. 4-284). On the next page, different numbers are cited, including a 50 MW PV project and 3x150 MW CSP projects, for a total of 500 MW of solar energy projects. These numbers differ from the other

**FA2-43.** Section 2.1.4 and Appendix B discuss the methodology used by NREL.

**FA2-44.** The FEIS has been revised to identify the potential number of acres that could be affected. The number of plants has been removed.

**FA2-45.** The RFD scenarios for geothermal, solar, and wind, respectively, serve as an analytical tool based on a set of assumptions. These assumptions include known or potential resource constraints and typical operational requirements for a variety of technologies. The acreages derived in these scenarios were based on approximate footprints that are characteristic of the renewable energy development types. Thus, it is more accurate to use acreages as opposed to the number of plants when discussing development. The purpose of the Plan Amendment/EIS is to apply these assumptions to inform decisionmakers. At this point in the planning process, known constraints will limit development. As BLM reviews specific applications for exploration and development, it will become apparent that additional limits will constrain ultimate development. It is expected that water needs, biological and cultural resource impacts or mitigation costs, and transmission will significantly reduce the number of viable projects. This approach is no different than other BLM planning initiatives, such as allocation of public lands for oil and gas development, under which areas are identified as appropriate for leasing. Development is conditioned on site-specific resource issues.



numbers used throughout Chapter 4, making it extremely difficult for the reader to recognize which RFD scenario is being used as the basis for the calculated impacts.

**Recommendations:**

EPA recommends that BLM define a reasonable development scenario *specific and appropriate* to each *alternative*, and then utilize this scenario *consistently* throughout the Environmental Consequences (Chapter 4).

FA2-46

FA2-47

The FEIS should clarify if there are distinct numbers appropriate to the partial build-out of solar projects for Alternative 6 and how they differ from those used in Alternative 3. The FEIS should ensure that these numbers are used *consistently* throughout the document.

EPA recommends consideration of more stringent restrictions on water usage within the WCM REEA. Given the substantial potential for environmental impacts from large water withdrawals in the WCM REEA, as well as the documented difficulty in obtaining water rights, EPA recommends excluding those technologies that utilize wet cooling. In addition, EPA notes that PV is currently being proposed far more frequently than other types of solar technology due to the rapid decline in cost. Thus, we have seen a steady decline in the number of parabolic trough projects since last year. In fact, several companies are now in the process of switching from parabolic trough to PV systems, even after having completed the environmental review process for parabolic troughs. In addition, the two main companies utilizing dish technology have been sold to companies that plan to utilize PV systems instead. Another technology that may be utilized more frequently in the future is concentrated photovoltaic systems. The CPV technology uses minimal water use, boasts high efficiencies, occupies minimal land surface area (5 acres/MW), and does not require complete disturbance of the land surface area.

**Recommendations:**

Eliminate wet cooling for both parabolic trough and power tower technology within the WCM REEA for all alternatives with a solar development component.

FA2-48

FA2-49

Add CPV technology as one of the technologies (along with PV and dish technology) that would be given precedence under Alternative 6, as it utilizes very little water, occupies minimal land surface area, and minimizes surface disturbance.

Given the checkerboard pattern of land ownership within the WCM REEA, EPA recommends consideration of smaller-sized projects with technologies such as PV and dish systems. Larger-sized projects should still be evaluated, though, since some technologies, such as parabolic trough, require greater economies of scale.

**Recommendations:**

Utilize smaller numbers (MWs) for PV/dish technology as well as larger numbers for PV, dish, and troughs in the 'RFD scenario' within Chapter 4. Including the same base or standard measurement for both technologies will enable more accurate comparisons of impacts. For example, we suggest the following: 25 to 50 MW PV project, a 250-500 MW PV project, and a 250-500 MW parabolic trough (dry cooling) for Alternatives 3 and 5. For Alternative 6, we recommend including the same size PV project as Alternatives 3 & 5, 25 to 50 and 250-500 MW dish technology (if this technology still appears viable), and 25-50 and 250-500 MW CPV

FA2-50

**FA2-46.** The EIS outlined RFD scenarios for geothermal, solar, and wind energy in Sections 2.1.3, 2.1.4, and 2.1.5 in Chapter 2. These scenarios, which serve as an analytical tool and not a prescription for ultimate development, were used in each development alternative and were scaled according to the amount of development anticipated (i.e., full, partial, etc.). The alternatives represent different sets of resource management constraints, which, if applied, as described in the alternatives, are likely to result in the RFD for each energy resource being actually developed to a greater or lesser degree. This analysis was carried forward into the Chapter 4 Impact Assessment, as the basis for describing and analysing the extent and character of the impacts expected from development of these renewable energy sources in the WCREA.

**FA2-47.** The acreages derived in these scenario were based on approximate footprints that are characteristic of the renewable energy development types. Thus, it is more accurate to use acreages as opposed to the number of plants when discussing development. Refer to Response to Comment FA2-44.

**FA2-48.** Refer to Response to Comment FA2-14.

**FA2-49.** As with the Solar Energy Development Programmatic EIS, this EIS seeks to designate areas that are appropriate for renewable energy development at a broad scale, including geothermal, wind, and solar energy. Geothermal energy can be developed using binary or flash technology (or both); wind energy basically has only one technology; and solar energy can be produced using a variety of technologies. The solar industry is fast evolving and is experimenting with new approaches to maximize energy production in more efficient ways with smaller footprints and reduced water needs. For this reason, BLM does not believe it is appropriate to prescribe any particular

*Continued from previous page.*

technology; rather, the BLM believes it is appropriate to allow market forces to develop the most efficient means for development. Each proposal will be evaluated on its own merits.

**FA2-50.** Acreages in the solar RFD scenarios were used because of the uncertainty of the size and number of projects that would be built within the REEA. As correctly noted, a variety of technologies, each with its own size based on economy of scale, could be used in the area. The project sizes were used because they mirrored similar projects being proposed in the Desert Southwest and considered in the Solar Programmatic EIS.



technology.

FA2-51

In addition, if BLM utilizes a set scenario for solar development for each Alternative, impacts should be tallied for this scenario, and then multiplied by some factor to capture a more realistic version of the likely extent of impacts in the WCM REEA. BLM would have to define this factor and then apply it consistently, once again, throughout Chapter 4. Worst-case scenario (in terms of impacts) would be, of course, the maximum RFD scenario.

*Further Examples of Inconsistencies with RFD Scenarios*

EPA notes that, in Section 4.5 (Water Resources), the DEIS uses a 50 MW PV project and a 500 MW CSP (parabolic trough project) for Alternative 3 (pg. 4-87) and a 50 MW PV facility and one 500 MW CSP project for Alternative 6 (pg. 4-95). For Alternative 6, the DEIS states each 500 MW CSP plant could result in land disturbance of 2,500 acres – this implies that BLM is utilizing parabolic trough technology with a land disturbance to MW ratio of 1:5 – as opposed to dish technology, with a ratio of 1:9. On the next page, however, the DEIS discusses operational water needs for this RFD scenario using one 50 MW PV project and one 500 MW CSP project (dish engine technology only), which, though correct, is inconsistent with what is on the previous page.

*Recommendations:*

FA2-52

The FEIS should correct such inconsistencies throughout the document, including the reference to 2,500 acres on pg. 4-95.

*Using the Maximum RFD for Land Disturbances alongside the Newly Defined Solar RFD*

To further complicate matters, the DEIS utilizes the maximum RFD scenario when calculating impacts to acreages of land for various resources, including Section 4.5.4.6. For example, the DEIS states that direct impacts to water resources could occur if up to 13,482 acres of CSP (dish technology only) or up to 49,864 acres of PV were developed. These values are associated with the Maximum RFD scenario, not the newly defined RFD scenario developed for the Environmental Consequences analysis in Chapter 4. These values are interspersed with the already inconsistent RFD scenario for solar energy development analysis (one 50 MW PV project and one 500 MW CSP project), and this makes it extremely difficult for the reader to recognize which RFD scenario is being used as the basis for the calculated impacts.

We agree that it is useful to break down the numbers in terms of potential project size; however, this subject needs to be discussed earlier and appropriate terminology needs to be defined and applied consistently throughout the document. Such inconsistencies are found in the other resource areas throughout Chapter 4 of the document. As a result, it is extremely difficult to understand or evaluate the potential environmental impacts until these inconsistencies have been eliminated.

*Recommendations:*

FA2-53

The FEIS should distinguish between the maximum solar RFD scenario and the full solar RFD scenario for Alternatives 3, 5, and 6. This could be done by discussing these topics more explicitly in the DEIS or by introducing terms specific to each type of scenario.

**FA2-51.** As noted in the DEIS, it is believed that the actual development will be far less than the development considered in the RFD scenarios. However, there is no known objective factor that could be used to arrive at a more realistic level of development and characterization of the likely impacts of such development.

**FA2-52.** The FEIS was revised to correct inconsistencies in Section 4.5.

**FA2-53.** Comment noted. The FEIS has been revised to reflect the differences in the likely solar development in Alternatives 3, 4, 5, and 6.

**FA2-54**

The FEIS should include calculations based on the maximum RFD scenario (worst-case scenario) for both land disturbance and *impacts to resources*. These calculations can be placed in each resource section in Chapter 4, or they can be tallied separately as a component of the Cumulative Impacts Analysis.

The DEIS states that direct, indirect, and residual impacts in Chapter 4 are estimates, and the upper range of impacts – as land use planning screening did not include cultural or biological filters for resource values, including but not limited to Native American concerns, traditional cultural properties, desert tortoise habitat, and flat-tailed horned lizard habitat, among others (pg. 4-6).

**Recommendations:**

EPA is unclear if the statement above is, perhaps, the basis for using the maximum RFD to calculate acreages of land disturbance associated with solar development. We request clarification on this statement.

**FA2-55**

**FA2-56**

The FEIS should explain how these calculated values can be considered as the upper range of impacts, when there is such a difference between the maximum RFD scenario and the newly defined RFD scenario utilized in Chapter 4.

**FA2-57**

The FEIS should clarify why BLM did not incorporate cultural or biological filters into land use planning screening. This contradicts the statement presented earlier in the DEIS – that RFD scenarios were developed based on known or estimated resource constraints (topography, critical habitat to threatened and endangered species, proximity to hydrologic features, groundwater resources).

**Cumulative Impacts Analysis**

EPA is concerned that the potential cumulative environmental impacts are underestimated in the DEIS. The Cumulative Impacts Assessment (Section 4.19) is intended to identify all projects that could contribute to the overall cumulative impacts for a particular resource. According to the DEIS, the RFD scenarios were intended to provide the information necessary to analyze potential cumulative impacts (pg. 2-3). The DEIS states, however, that for resource sections where the analysis in Chapter 4 determined that there would be *no impact* or that there would be *no impact after mitigation*, the cumulative effects under the alternatives are *not* analyzed because the action would not contribute to cumulative impacts to that resource (pg. 4-308). This conclusion is flawed because the DEIS calculated impacts for solar energy development using a newly defined RFD scenario, instead of utilizing the maximum RFD scenario. The contrast between these two scenarios is so pronounced (for solar development) that it calls into question the conclusion presented in the DEIS that the action would not contribute to cumulative impacts if, according to the newly defined solar RFD scenario, there would be no impact or no impact after mitigation.

The DEIS states that an effect is considered residual when the effect cannot be completely avoided or minimized and remains after or despite mitigation (pg. 4-1), and concludes that no residual impacts for any impacts were identified (pg. 4-328). The basis for this conclusion is unclear, given that development would cumulatively result in long-term adverse impacts, such as habitat loss, fragmentation, and degradation (pg. 4-317). Even with the implementation of mitigation measures, the alternatives would

**FA2-54.** Impacts by resource alternative are tallied in Table 4-1.

**FA2-55.** The RFD scenarios used in the EIS included screening criteria of known resource conditions. Section 2.1.1 and Sections 2.1.2 of the DEIS list the available data and assumptions that were used when establishing screening criteria. The screening criteria were varied to provide a reasonable range of alternatives that meet the purpose and need. The alternatives represent different sets of resource management constraints, which, if applied, as described in the alternatives, are likely to result in the RFD for each energy resource being actually developed to a greater or lesser degree. Thus, not all of the action alternatives include a so-called maximum RFD Scenario.

**FA2-56.** Refer to Responses to Comments FA2-51, FA2-53, and FA2-55.

**FA2-57.** The FEIS has been revised to include biological filters such as a 300-foot buffer around all wetlands and riparian features. Comment noted. Refer to Responses to Comments FA2-51, FA2-53, and FA2-55.



contribute to unavoidable adverse impact to these resources (vegetation, fish and wildlife, special status species) (pgs. 4-316, 4-317, and 4-319).

The Salton Sea serves as an important wildlife area, and many existing conservation projects focus on the development of shallow saline habitat ponds along the edge of the Sea, including the Salton Sea Species Conservation Habitat Project. Although the DEIS for that project is currently out for public review, it is not listed in the cumulative impacts analysis as a reasonably foreseeable project.

*Recommendations:*

**FA2-58**

The BLM should estimate the level of probable development within the WCM REEA and utilize this scenario to calculate potential impacts associated with solar development in the WCM REEA. The BLM could utilize the maximum RFD scenario, or some other reasonable scenario beyond what is presently considered (50 MW PV and 500 MW parabolic trough). The FEIS should combine these impacts – with those impacts from other proposed projects within the 40-mile buffer zone – in the Cumulative Impacts Analysis.

**FA2-59**

BLM should consider revising Section 4.20.2 (Residual Impacts) or discussing the basis for its conclusion in greater detail within the FEIS.

**FA2-60**

The FEIS should include the Salton Sea Species Conservation Habitat Project in table 4.19-1.

**Alternatives Analysis**

The DEIS presents six action alternatives including: Alternative 1 – No Action/No CDCA Plan Amendment; Alternative 2 – No Development/CDCA Plan Amendment; Alternative 3 – Renewable energy development emphasis; Alternative 4 – Geothermal development only; Alternative 5 – Solar emphasis with moderate geothermal and no wind; and Alternative 6 – Geothermal emphasis with moderate solar and no wind. According to the Executive Summary – for Alternatives 3 and 5 – wind, solar, and geothermal projects would be subject to the following constraints: 1) BOR withdrawn land is not available for leasing; and 2) acquired lands are not available for ROWs (pg. ES-7). In Chapter two, however, the text does not explicitly mention that solar and wind projects would not be allowed on acquired lands (pg. 2-15).

For Alternative 6, the competitive process will favor water-efficient solar energy technologies and technologies that avoid potential conflict to military operations. The DEIS states, however, that no particular technology is precluded from consideration in the competitive process. The DEIS does not elaborate on the competitive process for wind and solar applications, except to note that competitive procedures will be developed following the conclusion of the planning process.

*Recommendations:*

**FA2-61**

The FEIS should clarify whether solar development would be allowed on acquired lands under Alternatives 3 and 5 and ensure that this is stated accurately throughout the document.

**FA2-62**

The FEIS should specify the competitive procedures that will be used to sort through solar and wind ROW applications under Alternative 6.

**F A2-58.** It is important to note the narrow scope of the decisions to be made on the basis of this NEPA analysis – this is a plan allocation/establishment of resource protection measures decisionmaking process, and is based on assumptions about what kind of development might occur in the future. As noted in the DEIS, this programmatic document assumes that far less development than the “maximum” RFD Scenario will occur in the REEA. Many factors will constrain development, such as water and transmission availability, project economic viability and financing, and site-specific resource conditions that would affect siting and reduce maximum project footprint. Further, it is difficult to present anything but a fairly speculative cumulative impacts analysis for future development, when there are no development projects currently proposed in the WCREEA. Rather than prescribe a maximum number of projects, BLM will conduct appropriate environmental analysis, including, as appropriate, incorporating relevant elements of this analysis, when it considers future development proposals in this area.

**FA2-59.** The FEIS has been revised to expand on the impacts that would occur after all reasonable mitigation is applied.

**FA2-60.** The Salton Sea Species Conservation Habitat Project has been added to the list of projects in Table 4.19-1.

**FA2-61.** The FEIS has been revised to state “Lands acquired by the BLM under donation agreements for mitigation/compensation purposes and with LWCF funds should be considered, through a separate planning process, for management as avoidance areas for land use authorizations that could result in surface disturbing activities. See CA IM-2009-020”.

*Continued from previous page.*

**FA2-62.** The BLM has further considered the issue of competitive leasing, and has determined that the issue is not germane to this land use planning process. On December 29, 2011, the BLM published an Advanced Notice of Proposed Rulemaking regarding the possibility of engaging to rulemaking to establish a competitive process for leasing public lands for solar and wind energy development (76 Fed. Reg. 81906). This has been noted in the Introduction to the FEIS, and other references to competitive leasing have been removed from the text.

The Preferred Alternative places an emphasis on geothermal development, with moderate solar development and no wind. The proposed development (3x50 MW) would consume considerable amounts of water – up to 17,500 AF/y, which is about 70% of the amount allocated for non-agricultural use by the IID. We are concerned that BLM has selected a Preferred Alternative that gives precedence to a technology (geothermal) that utilizes substantial amounts of water, especially since solar development is constrained by water usage. Although we recognize that geothermal facilities provide baseload power, it would seem prudent to utilize technologies that minimize water use, as is proposed for solar energy development.

**FA2-63**

**Recommendation:**

The FEIS should clarify why BLM has selected a Preferred Alternative that emphasizes geothermal development, which utilizes substantial amounts of water, when solar technologies are constrained by water usage.

EPA supports appropriate constraints on future development to provide for more responsible and successful siting of projects in the WCM REEA. We note, however, that the proposed terms may be more restrictive than necessary. For example, PV systems can be installed successfully in areas with less solar intensity, on slopes greater than 5 percent, and in urban areas. Relaxing some of the parameters for exclusion – or modifying them in recognition of differences in technologies – may be worth consideration, if this would result in greater protection for sensitive resources located in areas that would otherwise be developed.

**FA2-64**

**Recommendation:**

BLM should allow for revision of the exclusion parameters – provided that the applicant can show environmental benefits associated with these revisions.

Solar intensities in the WCM REEA are illustrated in Figures 2-2, 2-3, 2-4, and 2-5 utilizing a range of values from 6.5 to 7.5 kWh/m<sup>2</sup>/day for CSP (1% slope) and 6.4 to 6.8 kWh/m<sup>2</sup>/day for PV (1%, 3%, and 5% slope). According to the DEIS, areas with intensities less than 6.0 kWh/m<sup>2</sup>/day were excluded. Furthermore, the DEIS states that portions of the WCM REEA considered suitable for CSP development contain intensities ranging from 6.7 to 7.4 kWh/m<sup>2</sup>/day. Likewise, those portions suitable for PV development contain solar resources estimated at 6.4 to 6.6 kWh/m<sup>2</sup>/day. In the description of alternatives, it is not clear whether these estimates or the more general restriction with a lower limit of 6.0 kWh/m<sup>2</sup>/day will be used to guide siting of certain technologies.

**FA2-65**

**Recommendation:**

The FEIS should clearly state what the restrictions are and accurately show the areas where solar development will be permitted for each type of technology. If this includes those areas with intensities ranging from 6.0 to 6.4 kWh/m<sup>2</sup>/day for PV or from 6.5 to 6.7 kWh/m<sup>2</sup>/day for CSP, then these areas should also be shown in the corresponding figures.

**Environmental Review Process for Subsequent Projects**

The DEIS states that it is a programmatic document (pg. 4-19) and contains programmatic analysis (pg. 2-2). According to the DEIS, the NEPA analysis presented was developed to support decision making regarding allocation of uses and certain leasing decisions, but not specific development projects (pg. 2-

**FA2-63.** The Preferred Alternative in the DEIS was selected because BLM believes that it best meets the Purpose and Need statement under NEPA. Geothermal energy is generally constrained by geologic features, whereas solar energy potential is found throughout the nation. In addition, because geothermal energy development generally has a smaller footprint and can produce baseload electrical power, BLM wanted to ensure that the plan amendment maximized, to the extent possible, this form of renewable energy. BLM did not endorse any particular technology by choosing this as the Preferred Alternative.

**FA2-64.** Waivers, exceptions, and modification will be considered on a project-by-project basis.

**FA2-65.** Section 2.1.2 states the restrictions, and Figure 2-2 through 2-5 shows where solar development would be allowed.



16). Thus, specific development projects on federal lands within the WCM REEA would undergo project-specific NEPA review prior to a decision to approve or reject the applications. The DEIS does not, however, discuss how BLM will decide what level of environmental analysis will be required under NEPA for subsequent projects, nor whether the NEPA documents for such projects would be tiered to the DEIS. If the intent is to use this EIS as a programmatic document from which to tier future project-specific EISs, then EPA would expect to see a more in-depth and comprehensive analysis of potential impacts, including direct, indirect, and cumulative impacts.

EPA supports several key elements and concepts presented in the DEIS, including the resource constraints and certain mitigation measures, such as the buffer of 100 feet for water features. In the absence of greater detail regarding the environmental review process for future projects, we are concerned about how BLM will ensure that such elements will be implemented in such projects.

**Recommendations:**

**FA2-66**

The FEIS should clarify how BLM plans to utilize this document in the future, including whether or not BLM anticipates that subsequent projects will tier off of this document.

**FA2-67**

EPA recommends that BLM elaborate on the process that BLM will use to assess whether an EA or EIS will be required for subsequent projects in the FEIS.

**FA2-68**

The FEIS should discuss, specifically, how mitigation measures and best management practices presented in this DEIS will be incorporated in subsequent projects.

**FA2-69**

The FEIS should clarify whether specific commitments, such as the 100 feet buffer for water features, will be incorporated into the Record of Decision.

**Need for the Proposed Federal Action – Existing Applications**

The DEIS states that the need for the proposed federal action arises from pending renewable energy applications, national policy, and Congressional direction. We agree that there is a need to respond more efficiently and consistently; however, there is only one pending non-competitive lease application for geothermal resources and no pending solar or wind ROW applications in the WCM REEA (pg. 1-11).

**Recommendation:**

**FA2-70**

If possible, the FEIS should explain why there are no pending renewable energy applications in the WCM REEA, except for the non-competitive lease application for geothermal resources. Were applicants steered away from the WCM REEA previously? Is transmission a factor?

**Miscellaneous Comments and Edits**

**FA2-71**

1. Section 3.5.3.1 – pg. 3-57 – Another substantial, off-site, natural surface water feature 2 miles north of the REEA is Salt Creek, an ephemeral stream flowing into the Salton Sea north of the REEA (figure 3.5-1). Salt Creek, however, is not identified on figure 3.5-1.

**FA2-72**

2. Executive Summary – pg. ES-10 – Alternative 6 provides information on water consumption associated with parabolic troughs using wet cooling and dry cooling. Information on water consumption

**FA2-66.** The CDCA Plan Amendment/EIS will serve as planning level guidance from which site-specific NEPA analyses will tier, as appropriate. As a land use plan and analysis, this document (and its subsequent Record of Decision) includes stipulations with which future projects will need to conform. Each project proposal will be evaluated and the appropriate NEPA document will be prepared per 40 CFR 1501.3 and 1501.4. These analyses will include information and resource data from this document as required by the Council on Environmental Quality regulations at 40 CFR 1508.21 and 1508.28. See Chapter 1 for further clarification of how this document will be used when considering future project proposals.

**FA2-67.** Refer to Response to Comment FA2-66 on Tiering.

**FA2-68.** Refer to Section 2.3 of the EIS for a discussion on this topic.

**FA2-69.** Specific stipulations and mitigation measures, if selected for approval, will be incorporated in the ROD.

**FA2-70.** Comment noted; however, that is speculation on BLM's part and beyond the scope of this EIS.

**FA2-71.** Figure 3.5-1 (Surface Hydrology) shows the location of washes and other water bodies in the REEA. All project runoff from the REEA would flow into washes identified in the USGS NHD, including those shown on Figure 3.5-1, and into the Salton Sea.

The comment noted that Salt Creek is not mapped on this figure. Salt Creek is north and outside of the REEA and no part of the Salt Creek surface drainage area is within or impacted by the REEA. Because of the possibility that groundwater production may impact the Salt Creek, Figure

*Continued from previous page.*

3.5-1 was revised, where appropriate, to include Salt Creek.

**FA2-73**

associated with wet cooling is irrelevant to this Alternative and should not be presented in this section, since parabolic trough technology would not be utilized due to constraints on water usage. This information would more appropriately be placed with Alternative 3, provided that information on water consumption is also provided for other alternatives and geothermal and wind development.

**FA2-74**

3. Section 2.2.6 – pg. 2-21 – Ditto.

4. Section 3.17.1 – pg. 3-167 – The DEIS states, “For the purposes of this analysis, the social and economic WCM REEA is considered to include those counties and communities within a one-hour drive from the proposed management are on mapped roads (Figure 3.17-1).”

Note: This information is not displayed on Figure 3.17-1. Figure 3.17-1 displays legal immigration in Riverside and Imperial Counties, 1984 – 2008.

**FA2-75**

5. Section 1.2 – Table 1-2 – pgs. 1-8, 1-10 – Table 1-2 illustrates surface and mineral ownership of lands within the WCM REEA. Acreages total up to 59,095; however, footnote 2 states that the 1,782 acres of private surface are included in the 31,551 acres of private land listed earlier in the table. It appears that the 1,782 acres are being counted twice in the tally of 59,095 acres. Please clarify. Also, although we eventually figured out how BLM concludes that there are 20,762 acres of land that contain federal surface estate (17,900 + 2,862) and 19,162 acres of federal mineral estate (17,900 + 1,782 – 600 + 80), for the ease of the reader, the FEIS should present this information clearly in a table.

**FA2-72.** Based on this comment, text pertaining to water consumption associated with the use of parabolic troughs and wet cooling methods has been removed from the Alternative 6 discussion in Section ES-10.

**FA2-73.** This section of the FEIS has been revised to remove the text pertaining to water consumption associated with the use of parabolic troughs and wet cooling methods.

**FA2-74.** This reference to Figure 3.17-1 has been removed.

**FA2-75.** Text has been revised in REEA to show the corrected boundary and land ownership.



**FA3-1.** Comment noted.

Debbie\_Allen@nps.gov

08/17/2011 02:58 PM

To: wcm\_comments@blm.gov, jvieira@blm.gov  
cc: Alan\_Schmierer@nps.gov, waso\_eqd\_extrev@nps.gov,  
Susmita\_Pendurthi@ios.doi.gov, Patricia\_Port@ios.doi.gov  
Subject: Fw: DES-11/0021:West Chocolate Mountain Renewable Energy  
Evaluation Area

**FA3-1**

FWR has no comment regarding subject document.

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"Don't dwell on what went wrong. Instead, focus on what to do next. Spend  
your energies on moving forward toward finding the answer." -- Denis  
Waitley



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1000  
WREC/pc  
November 4, 2011

Ms. Margaret Goodro  
El Centro Field Manager  
Bureau of Land Management  
1661 S. 4th Street  
El Centro, California 92243

Dear Ms. Goodro:

On behalf of Marine Corps Installations-West (MCI-W), I am providing the attached comments for the Draft Environmental Impact Statement (D-EIS) for the West Chocolate Mountains Renewable Energy Evaluation Area (WCMREEA), Imperial County, California, for your consideration in the development of the Final EIS in compliance with the National Environmental Policy Act. The broad scope of the WCMREEA is a positive step toward compatible land use and planning for both our organizations. Thank you in advance for taking MCI-W comments into consideration in the development of the Final EIS.

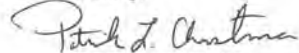
As you are aware, the WCMREEA is adjacent to the Chocolate Mountain Aerial Gunnery Range (CMAGR) which is managed by the Marine Corps. The CMAGR provides more than 700 square miles of land and several thousands of square miles of overlying and adjacent Special Use Airspace (SUA) that continues to support training and live fire range operations that are essential to the readiness of the nation's Marine Corps and Naval aviation. MCI-W continues to promote and encourage the development of renewable energy, however, our first priority is the management and conservation of installation real estate which is critical in maintaining our readiness mission.

Over the last few years, we have improved our communication and coordination process with regard to review of proposed energy right-of-way (ROW) applications on BLM-administered public lands. Thus, in the spirit of our previous protocols, MCI-W request BLM notify and consult our organization at the earliest opportunity whenever BLM receives a ROW renewable energy application for a solar, wind, or geothermal project to be sited within the WCMREEA. In this manner, we can continue to provide a process to develop mitigation measures to minimize impacts on our military activities.

Additionally, the Department of the Navy (DoN) Geothermal Program Office (GPO) has made test wells along the western side of the CMAGR to determine the potential for long-term resource development. MCI-W requests that our testing and pending review of the geothermal analysis be included in the WCMREEA D-EIS cumulative impacts analysis along with the ongoing CMAGR L-EIS Land Withdrawal Review which is currently underway. The DoN Geothermal Program Office manages this activity and can provide further details to assist in your EIS.

Thank you for the opportunity to participate in the scoping process and continue to be a cooperating agency on development of the WCMREEA EIS. We look forward to review of the Final EIS in support of the WCMREEA. My staff point of contact is Major John Garza, Regional Environmental Coordination Office, telephone (760) 725-2631, email: [johnny.garza@usmc.mil](mailto:johnny.garza@usmc.mil).

Sincerely,



PATRICK L. CHRISTMAN  
Assist Chief of Staff, G-7,  
Regional Environmental Coordination Office  
Marine Corps Installations West

Attachment to MCI-W DEIS Comment Letter dtd 4 Nov 2011

**Marine Corps Installations-West Comments on the West Chocolate Mountains Renewable Energy Evaluation Area (WCMREEA)**

While recognizing the importance of the Draft Environmental Impact Statement (D-EIS) for the West Chocolate Mountains Renewable Energy Evaluation Area (WCMREEA), MCI-W has concerns about the impact on our mission posed by potential geothermal, solar and wind energy projects in WCMREEA. Recognizing that this is the initial step in a more thorough and detailed analysis of the proposed alternatives that will follow, a comprehensive list of military concerns is very difficult to identify at this time. However, our initial concerns are provided for your consideration in the following scoping comments:

**FA4-1**

a. Heights of renewable energy structures and the transmission lines which connect these sources to the grid pose potential aviation obstacles to Marine Corps low-level aircraft entering and exiting the range airspace and those transiting the area via military training routes and special use airspace in and around the Chocolate Mountains Aerial Gunnery Range (CMAGR). Specifically, if any structure is erected that has a vertical component in excess of 50 feet, its effect on training and safety will have to be determined. Additionally, if wires are strung between structures, at any elevation, safety of flight will have to be considered.

**FA4-2**

b. Renewable energy farms may also impact military ground activity on and around the CMAGR. Site location and density must not limit and/or significantly alter ground accessibility to the range for military readiness training.

**FA4-3**

c. Certain types of ambient lighting can cause problems for our pilots when they are using night vision goggles while conducting flight operations and training at night and create safety of flight concerns. The ambient lighting issues will need to be assessed independently as well as cumulatively.

**FA4-4**

d. The potential for ground and airborne radar interference from moving wind turbine blades (radar scattering due to Doppler propagation of turning blades) can interfere with training, testing, and may also cause a safety of flight issue. Specifically, false Doppler returns could generate processing issues for systems utilizing Doppler logic and will need to be thoroughly reviewed for potential interference in training. Additionally, if any structure is erected that produces or

**FA4-1.** Appendix I-A of the FEIS states that notification of the FAA via FAA Form 7460-1 is required for any construction or alteration of navigable airspace within 5,000 feet of a heliport or 20,000 feet of an airport runway more than 3,200 feet in length. Additionally this section discusses BMPs and mitigation measures to avoid or mitigate impacts to DOD/military low fly zones.

**FA4-2.** The FEIS analyzes projects that would occur within the REEA and not the CMAGR. Projects adjacent to the CMAGR would be coordinated with the military to ensure continued access to the CMAGR.

**FA4-3.** Section 4.11 and 4.16 of the FEIS discusses impacts from lighting. Appendix I-A2 of the FEIS discusses BMPs for adverse impacts from lighting.

**FA4-4.** Appendix I-A4 of the FEIS discusses BMPs for adverse impacts from interference from electrical generating stations.

Attachment to MCI-W DEIS Comment Letter dtd 4 Nov 2011

replicates significant radar cross section, it has the potential to cause undesirable affects to aircraft training on the range. Furthermore, any interference with ground weapons locating radars may cause indirect fire safety issues.

**FA4-5**

e. The radio-frequency (RF) spectrum will also require careful analysis. If any structure or device has potential to transmit RF energy, it could have an adverse affect on communications, radar reception/detection and possibly illuminate Radar Homing and Warning Receivers (RHAW). Thus, any interference with command and control of military operations on the range is unacceptable as safety on the range will be compromised. RF interference with command and control of military operations will unnecessarily limit training and degrade military readiness.

**FA4-6**

f. Unintentional displacement of recreational users onto the CMAGR may occur as a result of construction of alternative energy development. By limiting or restricting access in and around alternative energy sites, recreational off highway vehicle traffic along the CMAGR border may unintentionally produce encroachment into restricted areas and create safety issues.

MCI-W is also providing the following comments directly related to the D-EIS:

**FA4-7**

a. Page 3-130, sixth paragraph, line one, change to read: "...REEA include Camp Billy Machen and SEAL Weapons and Tactics (SWAT) area 4. The camp is a desert warfare training facility for Naval Special Warfare (NSW) training and operational units and is located within SWAT 4 on the southwestern edge of CMAGR R-2507N, approximately 0.5 mile east of the West Chocolate REEA. This training area extends along much of the Southwest border of CMAGR, outside of restricted airspace, and is adjacent to the Coachella Canal. It shares a border with the West Chocolate REEA for approximately 8.4 miles and includes numerous land warfare live fire and maneuver training ranges. Slab City..."

**FA4-8**

b. Page 3-144, fourth paragraph, line two, change to read: "...West Chocolate REEA. NSW conducts basic and unit training in CMAGR SWAT 4. The training includes: (1) small arms marksmanship; (2) automatic weapons firing; (3) reconnaissance; (4) sniper weapons; (5) static and projectile explosives; (6)

**FA4-5.** Refer to Response to Comment FA4-4.

**FA4-6.** Section 4.15 analyzes indirect impacts from displacement of recreational activities.

**FA4-7.** Section 3.12.3 of the FEIS has been revised to reflect this comment.

**FA4-8.** Section 3.13.3.4 of the FEIS has been revised to reflect this comment.



Attachment to MCI-W DEIS Comment Letter dtd 4 Nov 2011

**FA4-9**

small unit live fire and maneuver; (7) field training exercises (FTX), and, pending approval of restricted airspace; (8) Unmanned Aerial Systems (UAS)."

**FA4-10**

c. Page 3-144, fifth paragraph, change to read:  
"Significant aviation training operations occur within the REEA. In 2007, there were 17,360 aerial sorties at the CMAGR, as shown in Table 3.13-1 below."

**FA4-11**

d. Page 3-145, first paragraph, line five, change to read:  
"...east of the West Chocolate REEA in SWAT 4 on the southwest side of CMAGR R-2507N, near Slab City."

e. Page 3-181, insert two new paragraphs between the current first and second paragraphs, to read as follows:

: "...Vincennes University (NAFEC 2007)

As previously mentioned, NSW Camp Billy Machen is located in CMAGR SWAT 4 adjacent to the West Chocolate REEA. This training facility and the associated ranges are the busiest NSW training facility in the western United States and are key and essential to NSW's overall training continuum. NSW first established a training presence at this location in 1966 and constructed the first training support facility in 1970. The current Desert Operations Facility opened in 1995. Additional training support facilities are programmed for construction in 2014. NSW forces train on a variety of live-fire ranges throughout SWAT 4 (29 currently, planned to increase to at least 32 during the next few years). There is active training approximately 350 days of each year. Average loading is approximately 100 personnel, with peaks up to 250.

As previously noted, NSW training includes: (1) small arms marksmanship; (2) automatic weapons firing; (3) reconnaissance; (4) sniper weapons; (5) static and projectile explosives; and (6) small unit live fire and maneuver.

It should be noted..."

**FA4-12**

f. Page 3-189, insert a new paragraph at the end of the "Military Institutions" section to read as follows:

**FA4-9.** Section 3.13.3.4 of the FEIS has been revised to reflect this comment.

**FA4-10.** Section 3.13.3.4 of the e FEIS has been revised to reflect this comment.

**FA4-11.** Section 3.17.3.2 of the FEIS has been revised to reflect this comment.

**FA4-12.** It is beyond the scope of this EIS to speculate on potential illegal activities. The cultural resources sections of the DEIS and FEIS discuss theft, graffiti, and vandalism.



Attachment to MCI-W DEIS Comment Letter dtd 4 Nov 2011

"NSW has concerns regarding both potential increases in encroachment into SWAT 4 and impacts on the conduct of effective training. Historically, NSW has experienced theft of training equipment as a result of civilians penetrating into SWAT 4 to recover "scrap" metal. There have also been training interruptions when curious civilians have wandered into training areas, especially weapon surface danger zones. It is anticipated that increased population in the general vicinity of SWAT 4, regardless of whether it is temporary or permanent, will increase the potential for both of the above. There is also concern that the ambient effects of developing capabilities for and subsequently producing renewable energy (e.g., increased lighting, noise, dust, vehicle traffic, etc.) will impact the ability of NSW forces to conduct effective training. The combat environments NSW forces operate in require them to be able to see and hear clearly in tactical situations, especially at night and frequently with the assistance of visual and other sensory augmentation systems. Notwithstanding that similar ambient effects may be encountered in combat or that NSW training frequently generates its own bursts of negative ambient effects, there is concern that the SWAT 4 training environment could be impacted and that NSW forces would not be able to train as effectively as required for deployment."



DEPARTMENT OF THE ARMY  
Los Angeles District, Corps of Engineers  
Regulatory Division, South Coast Branch  
6010 Hidden Valley Road, Suite 105  
Carlsbad, CA 92011

May 16, 2011

REPLY TO ATTENTION OF:  
Office of the Chief  
Regulatory Division

Teri Raml  
District Manager  
U.S. Department of the Interior  
Bureau of Land Management  
California Desert District  
22835 Calle San Juan de Los Lagos  
Moreno Valley, California 92553-9046

Dear Ms. Raml:

We have received your request (File No. SPL-2011-00420-LLC) dated April 20, 2011, for a letter from the U.S. Army Corps of Engineers (Corps) outlining the jurisdictional determination process and the potential need for a Section 404 under the Clean Water Act for development within the West Chocolate Mountains Renewable Energy Evaluation Area (WCM REEA) as depicted in Figure 1. This site is located downslope of West Chocolate Mountains near Niland, Imperial County, California.

FA5-1

The Corps regulates "Waters of the United States" which are broadly defined in Code of Federal Regulations (C.F.R.), title 33, section 328.3, subdivision (a), to include navigable waters, perennial and intermittent streams, lakes, rivers, ponds, as well as wetlands, marshes, and wet meadows. Section 328.3, subdivision further clarifies this definitions and includes tributaries of waters stated in section 328.3 are also waters of the U.S. Tributaries, including ephemeral streams, that contain connectivity to a Traditional Navigable Water (TNW) and that have a significant nexus with a TNW are jurisdictional.

FA5-2

Based on the location of the WCM REEA the closest TNW is the Salton Sea. Therefore, any streams or other aquatic resources located on-site that are connected to the Salton Sea are Corps jurisdictional waters of the U.S. In addition, because of the WCM REEA's proximity to the Salton Sea, streams and aquatic resources on-site would likely have a significant nexus with the Salton Sea.

FA5-3

Based on aerial photos of the WCM REEA on Google Earth Pro there appear to be an abundance of ephemeral streams throughout this site. On the northernmost portion of the WCM REEA streams appear to flow directly into the Salton Sea; while other ephemeral streams further south may flow into canals and drainages prior to entering the Salton Sea. Therefore, it

FA5-1. Comment noted.

FA5-2. Section 4.5 has been revised to reflect that the Salton Sea is the closest traditional navigable water to the West Chocolate Mountains REEA and any streams or other aquatic resources located within the REEA, particularly those that are connected to the Salton Sea are likely USACE jurisdictional waters of the U.S.

FA5-3. Section 4.5 has been revised to reflect that numerous ephemeral streams are located within the West Chocolate Mountains REEA; some of these streams may flow directly into the Salton Sea, or into canals and drainages prior to entering the Salton Sea; and that a Section 404 permit is likely required for any type of discharge of dredge or fill material in ephemeral streams within the West Chocolate Mountains REEA.

-2-

is likely that a Section 404 permit is required for any types of discharge of dredged or fill material in ephemeral streams within the WCM REEA.

FA5-4

Applicant's proposing any type of development within the WCM REER site should submit a jurisdictional determination (JD) of the streams on-site for verification. The Corps has two types of JDs; the Regional Guidance Letter 08-02 Preliminary JD (PJD) and the Approved JD. A PJD is used when both the Corps and the Applicant agree to accept jurisdiction on-site and therefore all aquatic resources are classified as Corps jurisdictional features. The PJD is verified in a more expedited process because the verification of the PJD stays within the District office. An Approved JD is used when either the Corps or the Applicant does not believe that all or some of the aquatic resources on-site are Corps jurisdictional. This process is only for waters that are considered isolated from a TNW or waters that do not have a significant nexus to a TNW. The Approved JD process can be more extensive because the Approved JD must not only go through the District office, but also be submitted to Corps Headquarters and the U.S. Environmental Protection Agency (USEPA) for final approval. Additional information on JDs can be found on the Corps website at: <http://www.spl.usace.army.mil/regulatory/>. All stream delineations submitted shall be in accordance with the *Field Guide to the Identification of the Ordinary High Water March (OHWM) in the Arid West Region of the Western United States* dated August 2008 and all wetland delineations submitted shall be in accordance with both the 1987 *Corps Wetland Delineation Manual* and 2008a *Regional Supplement to the Corps of Engineers Wetland Delineation manual: Arid West Region*. These guides are located on the Corps website under Jurisdictional Determination. When possible, to expedite the process, we recommend the PJD.

FA5-5

For all proposed discharges within waters of the U.S., all appropriate and practicable steps must first be taken to avoid and minimize impacts to aquatic resources. Large mainstem streams on-site; for example the large streams located on the northernmost portion of the site should be avoided as much as practicable. The Corps encourages Applicants proposing construction within the WCM REEA to consult the Corps in pre-application meetings during project design to work together to avoid and minimize impacts to aquatic resources while creating a viable project.

FA5-6

If you have any questions within the WCM REEA site please contact Lanika Cervantes at 760-602-4838 or via e-mail at [Lanika.L.Cervantes@usace.army.mil](mailto:Lanika.L.Cervantes@usace.army.mil). Please refer to this letter and SPL-2011-00420-LLC in your reply.

Sincerely,

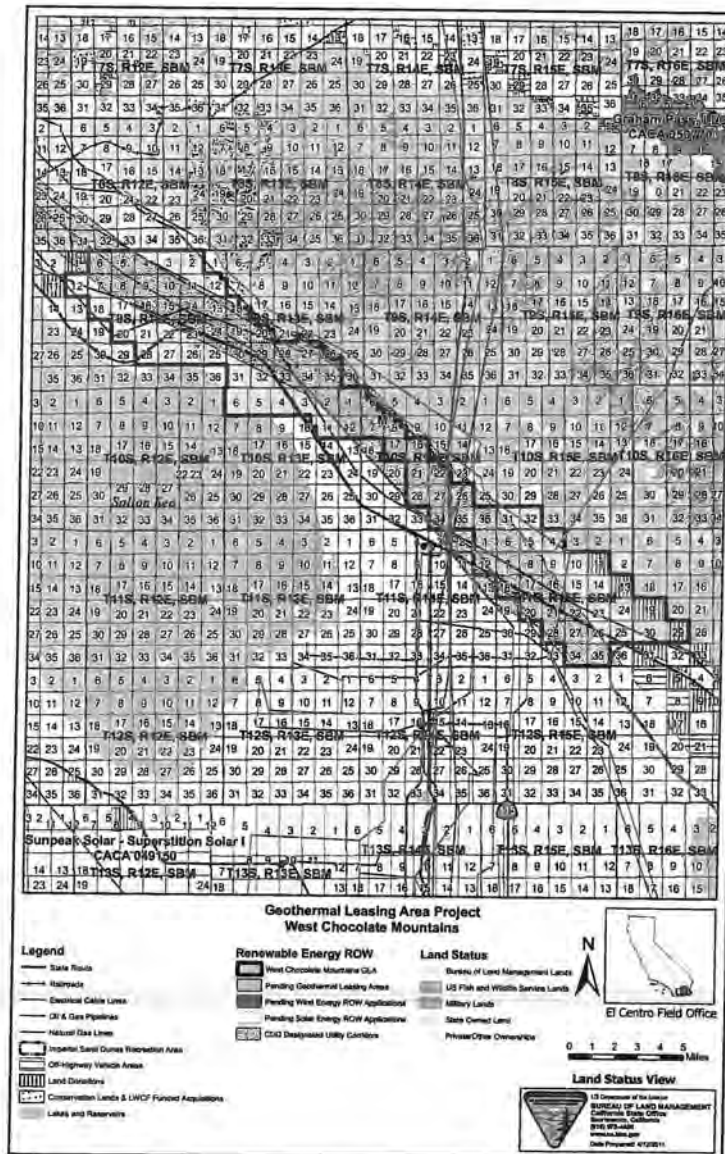


Therese O. Bradford  
Chief, South Coast Branch  
Regulatory Division

FA5-4. Refer to Response to Comment FA2-2.

FA5-5. Refer to Response to Comment FA2-2.

FA5-6. Refer to Response to Comment FA2-2.





Alex  
Neibergs/CASO/CA/BLM/DOI  
07/20/2011 03:48 PM  
To: Daniel Steward/CASO/CA/BLM/DOI@BLM  
cc: Andrew Trouette/CASO/CA/BLM/DOI@BLM  
Subject: Fw: DRAFT EIS West Chocolate Mountains  
Renewable Energy Evaluation AREA

Hi Daniel,

**FA6-1**

I am not sure how you would want to address the wild horse and burro element for this EIS. As I mentioned, the project is adjacent to the Chocolate-Mule Mountains HA. There about 6 burros outside the HA within the project area, along the canal where we attempted to trap a couple of summers ago. We have panels along the canal that we are planning on picking up soon. Determined that trying to water trap is not very conducive. We probably need to address updating the Capture Plan and EA for the burros. I also got a report from the Cal F&G on burros around Palo Verde getting into the alfalfa fields.

I am coordinating a helicopter census for the Chocolate Mule Mountains for the 2nd week in August. (Dates subject to change)

Would any of your specialists want to be a crew member?

If you have any questions, please let me know.

Thanks

Alex

**FA6-1.** Section 3.6.3.4 defines the Chocolate-Mule Mountains HA and the Wild Horse and Burros Act, but will be revised to reflect that there are six wild burros discovered within the West Chocolate REEA but outside the HA approximately two years ago.

▼ Alex Neibergs/CASO/CA/BLM/DOI

Alex  
Neibergs/CASO/CA/BLM/DOI

07/20/2011 10:02 AM

To: "Kathleen Hayden" <kats@znet.com>  
cc: Alex\_Neibergs@ca.blm.gov, "Craig Downer" <cddowner@yahoo.com>, "Deborah Hurley" <deborah\_hurley@sbcglobal.net>, "Linda Lee" <llee@uci.edu>  
Subject: Re: Fw: DRAFT EIS West Chocolate Mountains Renewable Energy Evaluation AREA

Hi Kat,

FA6-2

I looked at the project area map. The southeastern boundary just borders the western border of the Chocolate-Mule Mountains Herd Area. However, the identified Chocolate-Mule Mountains Herd Management Area is 30 miles to the east, next to the Colorado River.

This project would not have any affect on the management of burros within the Chocolate-Mule Mountains HMA.

Alex Neibergs  
Wild Horse and Burro Specialist  
Ridgecrest BLM Field Office  
300 S. Richmond Rd.  
Ridgecrest, CA. 93555  
PH: 760-384-5796  
FAX: 760-384-5767  
email: alex\_neibergs@blm.gov

**FA6-2.** Section 3.6.3.4 defines the Chocolate-Mule Mountains (CA0671) HA (unmanaged portion of an HMA where wild horses or burros were found at the time the Wild Horse and Burros Act was passed in 1971), as intersecting the southeast corner of the West Chocolate Mountains REEA. Approximately 1,184 acres of the Chocolate-Mule Mountains HA is in the REEA. This HA is delineated for wild burros of which there was a population of 90 in 2006. The Chocolate-Mule Mountains HA is comprised of approximately 341,000 acres of BLM land, of which approximately 151,000 is managed as a HMA by the BLM. The Appropriate Management Level (AML) is 121.

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## **Comments and Responses**

### **State and Local Agencies**



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STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN, Jr., Governor

**DEPARTMENT OF TRANSPORTATION**  
DISTRICT 11, DIVISION OF PLANNING  
4050 TAYLOR ST., M.S. 240  
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August 2, 2011

11-IMP-111  
PM 39.82-65.395  
West Chocolate Renewable Energy Evaluation Area  
SCH #2011074003

Mr. Joseph Vieira  
Bureau of Land Management  
1661 S. 4th Street  
El Centro, CA 92243

Dear Mr. Vieira:

The California Department of Transportation (Caltrans) received a copy of the Draft Environmental Impact Statement (DEIS) for the West Chocolate Renewable Energy Evaluation Area Plan (SCH #2011074003), located in proximity to State Route 111 (SR-111). Future specific renewable energy projects, which will go through the Project-specific environmental process, will need to evaluate the following:

**SLA1-1**

- Visual aspects of future specific projects including glint and glare should be documented not to have any potential impacts to motorists driving on State Highways.

**SLA1-2**

- Future specific project access should only be from existing county roads or a permitted highway access location. Any new access or additional trips to an existing access may require a focused traffic analysis, Traffic Control Plan, or any other necessary studies.

**SLA1-3**

- Any new utility encroachments into Caltrans right-of-way (R/W) will require an encroachment permit.

Additional information regarding encroachment permits may be obtained by contacting the Caltrans Permits Office at (619) 688-6158. Early coordination with Caltrans is strongly advised for all encroachment permits.

If you have any questions, please contact Leila Ibrahim of the Development Review Branch at (619) 688-6802 or leila.ibrahim@dot.ca.gov.

Sincerely,

JACOB M. ARMSTRONG, Chief  
Development Review Branch

*"Caltrans improves mobility across California"*

**SLA1-1.** The Visual Resource portion of Appendix I-A11 states that structures and buildings that are visible to the public will be colored and finished to minimize visual intrusion, contrast, and glare. Also, the Long-Term Effects portion of Section 4.11.4.3 states that geothermal plants and associated infrastructure would be sited in areas obscured from motorists, nearby residents, and nearby communities.

**SLA1-2.** Appendix I-A9 has been revised to reflect the potential need for a focused traffic analysis if there are any new access points or additional trips to an existing access.

**SLA1-3.** Appendix I-A9 states that road construction and maintenance on BLM lands should follow established policies and guidelines within BLM Manual 9113. Furthermore, ongoing ground transportation planning to evaluate road use, minimize traffic volume, and ensure that roads are maintained adequately to minimize associated impacts would be conducted. This section also states that encroachment permits would be obtained from the appropriate agencies.



DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) AND CALIFORNIA DESERT  
CONSERVATION AREA (CDCA) PLAN AMENDMENT FOR THE WEST CHOCOLATE  
MOUNTAINS RENEWABLE ENERGY EVALUATION AREA; SCH# 2011074003

In reference to 3200/1610 (P); CAD050, The Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR), Cypress office, has reviewed the above referenced project. Our comments are as follows:

The proposed project is located within the DOGGR's administrative field boundaries in Imperial County. There are idle and plugged and abandoned oil, gas, and geothermal wells within and/or adjacent to your proposed project identified on DOGGR map W1-8 (Geothermal). <http://ftp.consrv.ca.gov/pub/oil/maps/dist1/W1-8/Mapw1-8.pdf>. The DOGGR recommends that all future drill sites, oil production facilities and existing wells within or in close proximity to project boundaries be accurately plotted on future project maps.

The scope and content of information that is germane to the DOGGR's responsibility are contained in Section 3000 et seq. of the Public Resources Code (PRC), and administrative regulations under Title 14, Division 2, Chapter 4 of the California Code of Regulations.

An operator must have a bond on file with the DOGGR before certain well operations are

November 2012

Mr. Peter Godfrey  
September 21, 2011  
Page 2 of 2

**SLA2-3**

allowed to begin. The purpose of the bond is to secure the state against all losses, charges, and expenses incurred by it to obtain such compliance by the principal named in the bond. The operator must also designate an agent, residing in the state, to receive and accept service of all orders, notices, and processes of the Supervisor or any court of law.

Written approval from the Supervisor is required prior to changing the physical condition of any well. The operator's notice of intent (notice) to perform any well operation is reviewed on engineering and geological basis. For new wells and the altering of existing wells, approval of the proposal depends primarily on the following: protecting all subsurface hydrocarbons and fresh waters; protection of the environment; using adequate blowout prevention equipment; and utilizing approved drilling and cementing techniques.

**SLA2-4**

The DOGGR must be notified to witness or inspect all operations specified in the approval of any notice. This includes tests and inspections of blowout-prevention equipment, reservoir and freshwater protection measures, and well-plugging operations.

**SLA2-5**

The DOGGR recommends that adequate safety measures be taken by the project manager to prevent people from gaining unauthorized access to oilfield equipment. Safety shut-down devices on wells and other oilfield equipment must be considered when appropriate.

**SLA2-6**

If any plugged and abandoned or unrecorded wells are damaged or uncovered during excavation or grading, remedial plugging operations may be required. If such damage or discovery occurs, the DOGGR's Cypress district office must be contacted to obtain information on the requirements for and approval to perform remedial operations.

If you have questions on our comments, or require technical assistance or information, please call me at the Cypress district office (714) 816-6847.

Sincerely,

  
Syndi Pompa  
Associate Oil & Gas Engineer - Facilities

**SLA2-3.** Comment noted. This information has been added to Appendix IA-12 of the FEIS.

**SLA2-4.** Comment noted. This information has been added to Appendix IA-12 of the FEIS.

**SLA2-5.** Comment noted. This information has been added to Appendix IA-12 of the FEIS.

**SLA2-6.** Comment noted. This information has been added to Appendix I-A12 of the FEIS.





State of California • Natural Resources Agency

DEPARTMENT OF PARKS AND RECREATION  
Colorado Desert District  
200 Palm Canyon Drive  
Borrego Springs, CA 92004

Joseph Vieira, Project Manager  
Bureau of Land Management  
California Desert District Office  
22835 Calle San Juan de Los Lagos  
Moreno Valley, CA 92533

jvieira@blm.gov

September 29, 2011

Subject: Draft EIS and Draft CDCA Plan Amendment for the West Chocolate Mountains  
Renewable Energy Evaluation Area.

Dear Mr. Vieira:

We appreciate the opportunity to comment on the above proposed project. The proposed project may make lands directly adjacent to Salton Sea State Recreation Area, which is part of the Colorado Desert District (CDD) of California State Parks, available for solar, wind and geothermal testing and development in the future.

The CDD has the following concerns with the draft EIS and draft CDCA Plan amendment.

**SITING**

Energy development on BLM lands directly adjacent to state parks or state recreation areas would have significant impacts to state park lands. In the draft EIS there are BLM lands directly adjacent to Salton Sea State Recreation Area that are proposed for inclusion within a renewable energy area. We strongly recommend that all BLM lands directly adjacent to any state park lands be put into a "lands not available for renewable energy development" category and request buffers of sufficient size to avoid impacts to state park lands and resources. Development of lands directly adjacent to state park lands would impinge upon our lands in terms of the parks' visual, recreation, natural resources, and cumulative impacts. Cultural landscapes could be impacted, and loss of recreation opportunities could adversely impact local tourism-dependent economies. Construction and operation noise could adversely impact the parks. Disturbance of carbon-sequestering desert soils could have a net impact contributing to greenhouse gases and climate change. State Park lands that are adjacent to the renewable energy evaluation area include SBBM – T9.S., R.11E., NE quarter sections of Section 14 and 24.

Further comments may follow if additional project-specific environmental analyses are conducted within the Renewable Energy Evaluation Area for proposed projects that may affect California State Park lands in some form.

**SLA3-1.** Off-site impacts were considered in the EIS and will also be further considered in site specific project analyses. BLM will consider specific mitigation to minimize or avoid these off site impacts to the extent possible.

**SLA3-1**

**PALEONTOLOGY**

We offer the following comments and suggestions regarding paleontological resources and impacts.

Section 3.3.3.2 Geology, Existing Conditions, Geologic Setting

**SLA3-2**

Typographic errors in figure 3.3-1 geologic rock unit key, "PYFC" (in 2 places) should be PFYC.

Section 3.10 Paleontology

**SLA3-3**

Section 3.10.3.2 Paleontology does not provide a PFYC under Brawley Formation (Q1), although classification 3 is listed for this geologic unit in figure 3.3-1.

Section 4.10 Paleontological Resources

**SLA3-4**

Section 4.10.1, the statement, "A Paleontological Monitoring and Recovery Plan could be written to address paleontological discoveries," should be changed to "A Paleontological Monitoring and Recovery Plan needs to be written to address paleontological discoveries," for full compliance with the Paleontological Resources Protection Act.

**SLA3-5**

Section 4.10.2 definitions of the three resultant fossil sensitivity classifications are unclear and imprecise. They should be rewritten, perhaps with an accompanying table or checklist to record the presence or absence of sensitivity characteristics, e.g., fossils recorded within project area, fossils recorded in land adjoining project area, survey not done, survey completed with no fossils recorded, etc. Also, the sensitivity classifications for the REEA as described in Section 3.10.3.2 indicate only classifications 2, 3, and 4 are assigned to the local geologic units, so there does not appear the need for condensation. The intent of this condensation appears to be for the purpose of determining PFYC classification for the lands specifically within the REEA based on prior paleontological investigations and recoveries, rather than the more general assignment of the classifications to geologic units that happen to include the REEA as part of the full geographic extent of the unit exposure, as in figure 3.3-1. If such is the case it should be made explicitly clear and the resultant unique classifications for units within the REEA presented in a separate table and map, along with justifications for the unique classifications.

4.19.3.10 Paleontological Resources, Cumulative Impact Analysis for All Alternatives and Table 4.20-1. Comparison of Effects, Mitigation Measures, Residual Impacts, and Cumulative Effects

**SLA3-6**

This section appears to contradict the findings of both long and short term direct and indirect impacts on paleontological resources under Alternatives 3, 4, 5, and 6, as stated in Sections 4.10.4.3, 4.10.4.4, 4.10.4.5, and 4.10.4.6.

**SLA3-7**

It also ignores the data from within and adjacent to the REEA, provided in figure 3.3-1, which includes at least 24 previously recorded paleontology sites. Also ignored are the sensitivity assignments provided in section 3.10.3.2 for geologic units within and adjacent to the REEA, six of which are classified as Potential Fossil Yield Classification

**SLA3-2.** The FEIS has been revised to correct this.

**SLA3-3.** Text revised to say "As discussed in more detail in Section 3.3, the Pleistocene Brawley Formation (mapped as Q1-Quaternary Lake Deposits) was mapped by Jennings (1967) at the surface and at depth over a large portion of the West Chocolate Mountains REEA. Sediments of the Brawley Formation tend to be fossiliferous (Maloney 1986). Under the BLM PFYC, these deposits are rated Class 3 – Moderate (BLM 2007)".

**SLA3-4.** The FEIS has been revised to correct this.

**SLA3-5.** The FEIS has been revised make the PFYC Classifications in Section 4.10 consistent with 3.10.

**SLA3-6.** The FEIS has been revised to correct this.

**SLA3-7.** The FEIS has been revised to correct this.

**SLA3-8**

4 (high sensitivity); Quaternary paleospring deposits, Quaternary cave deposits, Quaternary lake/playa deposits (Ql)-Lake Cahuilla beds, Quaternary alluvium (Qal), Quaternary nonmarine deposits (Qc). With the exception of Quaternary sand (Qs), classified as PFYC2, all other geologic rock units within the REEA are classified PFYC 3, medium sensitivity.

The Cumulative Impact Analysis should be rewritten to acknowledge the stated potential for paleontological impact under each of the alternative plans that allow energy development. Also, due to the higher potential, prior paleontological survey and/ or mitigation should be required and referred to in positive voice, with expectation of discovering paleontological resources, rather than as an after-the-fact, failsafe position, "in the event paleontological resources are identified during construction."

Appendix G: BLM Standard Lease Stipulations

**SLA3-9**

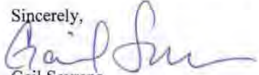
There are no standard stipulations covering Paleontological Resources. A Standard Stipulation should be added similar to that for Cultural Resources, including the federal legislation, which requires paleontological mitigation on federal lands (see summary in Section 3.10.2 Applicable Plans, Policies, and Regulations). Since the Paleontological Resources Preservation Act of 2009 requires management and protection by the secretaries of Interior and Agriculture, explicitly of paleontological resources on federal land, this requirement should appear as a standard stipulation in all BLM lease and land use agreements.

**SLA3-10**

There are no standard stipulations requiring guarantee of payment for decommissioning development projects. A Standard Stipulation should be added requiring any land development that will eventually require decommissioning, removal of infrastructure, and environmental rehabilitation to provide a guarantee of complete funds for decommissioning at the beginning of the project, e.g. a trust fund or other protected source of funds. The projected cost of decommissioning should be recalculated annually and the guaranteed funds adjusted appropriately. Currently the only place a requirement for planning such a guarantee appears is under Section 2.2.7.1 Discussion of AlternativesGeneral. Mitigation Measures and Best Management Practices Applicable to Geothermal, Solar, and Wind. Biological Resources. General to Any Species of Interest. 22.i, and 25.h, i, and j.

Thank you for your consideration.

Sincerely,



Gail Sevens  
District Superintendent, Acting

**SLA3-8.** The FEIS has been revised to correct this.

**SLA3-9.** Appendix I-A6 was revised to state "If paleontological resources are present at the site, or if areas with a high potential to contain paleontological material have been identified, a paleontological resources management plan (PRMP) will be developed."

**SLA3-10.** Comment noted.



STATE OF CALIFORNIA

EDMUND G. BROWN JR., Governor

CALIFORNIA STATE LANDS COMMISSION  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202



CURTIS L. FOSSUM, Executive Officer  
(916) 574-1800 FAX (916) 574-1810  
California Relay Service From TDD Phone 1-800-735-2929  
from Voice Phone 1-800-735-2922

Contact Phone: (916) 574-1890  
Contact FAX: (916) 574-1885

September 28, 2011

File Ref: SCH #2011074003

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IMPERIAL DISTRICT  
MORENO VALLEY, CA

Peter Godfrey  
Bureau of Land Management  
California Desert District  
22835 Calle San Juan De Los Lagos  
Moreno Valley, CA 92552

**Subject: Draft Environmental Impact Statement (EIS) and California Desert Conservation Area (CDCA) Plan Amendment for the West Chocolate Mountains Renewable Energy Evaluation Area (REEA), Imperial County (DOI No. DES 11-21)**

Dear Mr. Godfrey:

The California State Lands Commission (CSLC) staff has reviewed the Draft EIS and CDCA Plan Amendment for the West Chocolate Mountains REEA (proposed Action). The Bureau of Land Management (BLM) has prepared the Draft EIS/Draft CDCA Plan Amendment as the lead agency under the National Environmental Policy Act (NEPA) (42 U.S.C. § 4321 et seq.).

The CSLC has prepared these comments because of its jurisdiction over State school lands located within the REEA as well as its trust responsibility for any and all projects that could directly or indirectly affect State-owned sovereign lands and/or school lands, and their resources or uses (pursuant to State California Environmental Quality Act [CEQA] Guidelines<sup>1</sup> §§ 15381, 15386, subd. (b)). The CSLC also supports environmentally responsible use of school lands for renewable energy projects (see *Resolution By The California State Lands Commission Supporting The Environmentally Responsible Development Of School Lands Under The Commission's Jurisdiction For Renewable Energy Related Projects*, which was adopted by the CSLC on October 16, 2008 ([www.slc.ca.gov/Renewable\\_Energy/Documents/Resolution.pdf](http://www.slc.ca.gov/Renewable_Energy/Documents/Resolution.pdf)).

#### **CSLC Jurisdiction**

In 1853, the United States Congress granted to California millions of acres of land for the specific purpose of supporting public schools. In 1984, the State Legislature passed the School Land Bank Act (Act), which established the School Land Bank Fund and appointed the CSLC as its trustee (Pub. Resources Code § 8700 et seq.). The Act

<sup>1</sup> The "State CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.



Mr. Peter Godfrey

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directed the CSLC to develop school lands into a permanent and productive resource base for revenue generating purposes. The CSLC manages approximately 469,000 acres of school lands held in fee ownership by the State and the reserved mineral interests on an additional 790,000± acres where the surface estates have been sold. Revenue from school lands is deposited in the State Treasury for the benefit of the Teachers' Retirement Fund (Pub. Resources Code § 6217.5).

SLA4-1

Based on information contained on the maps provided in the draft EIS, CSLC staff has identified more than 1,580 acres of fee-owned school lands within the areas analyzed in the REEA (including all alternatives), and an additional 800± acres of lands with reserved mineral interests. These acreage figures do not match the 3,200 acres of land identified under ownership of the CSLC in the draft EIS. Please investigate this discrepancy and provide clarification in the final EIS.

This conclusion is without prejudice to any future assertion of State ownership or public rights, should circumstances change, or should additional information become available. This letter is not intended, nor should it be construed as, a waiver or limitation of any right, title, or interest of the State of California in any lands under its jurisdiction.

**CDCA and REEA Location and Description**

The CDCA encompasses 25 million acres in Southern California designated by Congress in 1976 through the Federal Land Policy and Management Act. The CDCA Plan is based on the concepts of multiple use, sustained yield, and maintenance of environmental quality, provides overall regional guidance for management of the public lands in the CDCA, and establishes long-term goals for protection and use of the California desert. The REEA, located in Imperial County near Niland, consists of approximately 59,095 acres of public and privately owned lands downslope of the West Chocolate Mountains within the boundaries of the CDCA. The REEA is south of Riverside County, north of the city of Calipatria, east of the Salton Sea, and west of the Chocolate Mountains.

Generally, the proposed Action would facilitate appropriate development of geothermal, solar and wind energy in the REEA by:

- identifying existing resources associated with lands in the REEA;
- making appropriate land use plan decisions regarding the location, development, and management of those resources;
- identifying stipulations and measures to mitigate the impacts related to geothermal, solar, and wind energy testing and development; and
- amending the CDCA Plan to identify sites suitable for solar or wind energy development within the CDCA.

Specifically, the proposed Action would allocate:

- 1) 20,962 acres of federal mineral estate for geothermal energy leasing, testing and development of geothermal power generation facilities; and

**SLA4-1.** Land ownership data in the REEA has been updated, including the CSLC lands.

Mr. Peter Godfrey

Page 3

September 28, 2011

- 2) 17,900 acres of BLM-administered federal surface estate for testing and development of solar and wind power generation facilities through rights-of-way (ROW) authorization.

The BLM's purpose is also to determine whether to approve a lease for federal geothermal resources on public lands with a pending noncompetitive lease application in the West Chocolate REEA (Draft EIS, Vol. 1, p. 1-10).

#### Environmental Review

##### Subsequent Review under CEQA

SLA4-2

Page 1-10 of the draft EIS correctly identifies the need for subsequent environmental review in the following statement:

*"If geothermal, wind, or solar activities are proposed in the future for the non-federal lands within the West Chocolate REEA, subsequent environmental documentation that complies with CEQA may be required by the Imperial County Planning and Development Services Department or the CSLC. Additional resource studies and or surveys (i.e., special status species and cultural resources) may also be required to be reviewed and approved prior to leasing state lands."*

Any future geothermal, wind, or solar development activities proposed to be located on State-owned school lands would require additional environmental analysis and compliance with the provisions of CEQA.

##### Future Land Use Planning and Resource Management

The draft EIS includes as a basis for analyzing environmental impacts three Reasonably Foreseeable Development scenarios for future leasing and development of federal geothermal, solar, and wind resources within the REEA. Foreseeable development could occur on any land within the REEA, regardless of surface or mineral ownership.

SLA4-3

Based on information provided in the draft EIS, it is the CSLC staff's understanding that BLM land use plan decisions regarding the location, development, and management of resources within the REEA will not:

- 1) adversely affect existing development rights on school lands or other properties where the State has reserved mineral interests;<sup>2</sup> or
- 2) place limitations on future geothermal, solar, wind energy or mineral development on school lands.<sup>3</sup>

<sup>2</sup> Draft EIS, Vol. 1, p. ES-14, par. 3: "There are no mitigation measures specific to energy and mineral resources, although future projects would be subject to valid, existing rights."

<sup>3</sup> Draft EIS, Vol. 2, p. 1, par. 2: "This is in no way intended to imply that the BLM would be making decisions about development on lands not administered by the BLM or development of mineral estate that may underlie public lands."

SLA4-2. Comment noted.

SLA4-3. Comment noted.

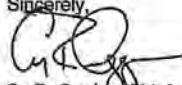
Mr. Peter Godfrey

Page 4

September 28, 2011

CSLC staff appreciates the opportunity to review and comment on the draft EIS and looks forward to further communication from the BLM. Please send copies of future Project-related documents or refer questions concerning environmental review to Joan Walter, Environmental Scientist, at (916) 574-1310 or via e-mail at [joan.walter@slc.ca.gov](mailto:joan.walter@slc.ca.gov). For information concerning the management, leasing, and sale of State school lands, please contact Jim Porter, Public Land Management Specialist, at (916) 574-1865 or via email at [jim.porter@slc.ca.gov](mailto:jim.porter@slc.ca.gov).

Sincerely,



Cy R. Oggins, Chief  
Division of Environmental Planning  
and Management

cc: Office of Planning and Research  
J. Porter, LMD, CSLC  
J. Walter, DEPM, CSLC  
J. Adams, MRM, CSLC

STATE OF CALIFORNIA  
NATIVE AMERICAN HERITAGE COMMISSION  
915 CAPITOL MALL, ROOM 364  
SACRAMENTO, CA 95814  
(916) 653-6251  
Fax (916) 657-5390  
Web Site [www.nahc.ca.gov](http://www.nahc.ca.gov)  
e-mail: [ds\\_nahc@pacbell.net](mailto:ds_nahc@pacbell.net)

Edmund G. Brown, Jr., Governor



August 30, 2011

Mr. Joseph Vieira, Lead  
**United States Department of the Interior**  
**Bureau of Land Management – El Centro Field Office**  
1661 South 4<sup>th</sup> Street  
El Centro, CA 92243

RECEIVED  
BUREAU OF LAND MANAGEMENT  
2011 SEP 30 AM 10:27  
EL CENTRO FIELD OFFICE  
EL CENTRO, CA

Re: SCH#2011074003; NEPA Notice; draft Environmental Impact Statement (DEIS) and California Desert Conservation Area (CDCA) Plan Amendment for the "West Chocolate Mountains Renewable Energy Evaluation Area (REEA) EIS / CDCA Plan Amendment Project," located in approximately 60,000-acres to identify sites for possible geothermal development, wind and solar energy projects; eastern Imperial County, California.

Dear Mr. Vieira:

The Native American Heritage Commission (NAHC) is the California State 'Trustee Agency' pursuant to Public Resources Code §21070 for the protection of California's Native American Cultural Resources. The NAHC is also a 'reviewing agency' for environmental documents prepared under the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*), 36 CFR Part 800.3, .5 and are subject to the Tribal and interested Native American consultation as required by the National Historic Preservation Act, as amended (Section 106) (16 U.S.C. 470; Section 110 [f] [k], 304). The provisions of the Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. 3001-3013) and its implementation (43 CFR Part 10.2), and California Government Code §27491 may apply to this project if Native American human remains are inadvertently discovered.

SLA5-1

The NAHC is of the opinion that the federal standards, pursuant to the above-referenced Acts and the Council on Environmental Quality (CEQ; 42 U.S.C. 4371 *et seq.*) are similar to and in many cases more stringent with regard to the 'significance' of historic, including Native American items, and archaeological, including Native American items at least equal to the California Environmental Quality Act (CEQA). In most cases, federal environmental policy require that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Statement (EIS).

SLA5-2

The NAHC Sacred Lands File (SLF) Inventory contains numerous Native American cultural resources and some burial sites within the 'area of potential effect' (APE), or project area identified in the Draft EIS and CDCA Plan Amendment document. This area is known to the NAHC as being very culturally sensitive; therefore, careful, sensitive planning is advised as well as quality consultation with the Native American on the attached list who may provide detailed information of their concerns. Although this project is being planned under federal laws and regulations, the California Legislature has made clear that it wishes California tribes and Native American involved in the development planning processes.

**SLA5-1.** The comment points out that federal law generally requires the preparation of an EIS for actions that may have an adverse effect on cultural resources. The present document is an EIS. Any individual project that might be proposed for authorization consistent with the decisions made during this planning initiative would require its own appropriate environmental review, under NEPA, and other statutes. During that review, and depending on the specific characteristics of the individual project, BMPs and other specific mitigation measures would be applied, as appropriate, on the basis of that environmental review.

**SLA5-2.** Native American participation in the scoping meetings for this NEPA process is noted in Section 5.1.4. Native American consultation was initiated as part of the planning process, and is ongoing. Native American consultation is described in Section 5.2.2. This section indicates the tribes consulted, the dates on which various letters were sent, and the results of those letters. Government-to-government consultation is ongoing for this project.



SLA5-3

The NAHC Sacred Lands File Inventory of the Native American Heritage Commission is established by the California Legislature pursuant to California Public Resources Code §§5097.94(a) and 5097.96. The NAHC, pursuant to Appendix B of the Guidelines for the California Environmental Quality Act (CEQA) is designated as the agency with expertise in the areas of issues of religious significance to California Native American communities, cultural resources and burial grounds. If you have further questions concerning sites of religious or archaeological significance in the project area, please do not hesitate to contact me.

SLA5-4

Culturally affiliated tribes are to be consulted to determine possible project impacts pursuant to the National Historic Preservation Act, as amended. Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. The NAHC recommends as part of 'due diligence', that you also contact the nearest Information Center of the California Historical Resources Information System (CHRIS) of the State Historic Preservation Office (SHPO) for other possible recorded sites in or near the APE (contact the Information Center at San Diego State University: 619-594-5682).

SLA5-5

Attached is a list of Native American contacts is attached to assist you that may have knowledge of cultural resources in the project area. It is advisable to contact the persons listed and seek to establish a 'trust' relationship with them; if they cannot supply you with specific information about the impact on cultural resources, they may be able to refer you to another tribe or person knowledgeable of the cultural resources in or near the affected project area.

SLA5-6

Lack of surface or subsurface evidence of archeological resources does not preclude the existence of archeological resources. Lead agencies should consider avoidance, in the case of cultural resources that are discovered. A tribe or Native American individual may be the only source of information about a cultural resource; this is consistent with the NHPA (16 U.S.C. 470 *et seq* Sections. 106, 110, and 304) Section 106 Guidelines amended in 2009. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful.

SLA5-7

NEPA regulations provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery'. Even though a discovery may be in federal property, California Government Code §27460 should be followed in the event of an accidental discovery of human remains during any groundbreaking activity; in such cases California Government Code §27491 and California Health & Safety Code §7050.5 may apply.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

Dave Singleton  
Program Analyst

Cc: State Clearinghouse

SLA5-3. Comment noted.

SLA5-4. As addressed in Response to Comment SLA5-2, Native American consultation has been initiated and is ongoing. The South Coastal Information Center was consulted for this EIS. The results of that consultation are summarized in Section 5.2.2.

SLA5-5. As addressed in Response to Comment SLA5-2, Native American consultation has been initiated and is ongoing. The 17 tribes contacted are listed in Table 5-1.

SLA5-6. Preservation is identified as a Management Goal for Cultural Resources in Section 4.9.1. Data recovery is proposed only if resources cannot be avoided. Possible impacts to previously unknown buried sites are discussed in Section 4.9.2. As noted in Response to Comment SLA5-3, government-to-government consultation is ongoing for this project, and knowledgeable Native American individuals will be consulted for each renewable energy project proposed in the future.

SLA5-7. The BLM is bound by provisions of the Native American Graves Protection and Repatriation Act in the case of inadvertent discoveries of human remains. These are similar, but not identical, to the California laws. This issue will be developed in the cultural resources management and mitigation plans and the historic property treatment plans for specific developments proposed in the future, consistent with the plan decisions made during this process, as discussed in Appendix I-A3.

**California Native American Contact List**  
Imperial County  
August 30, 2011

La Posta Band of Mission Indians  
Gwendolyn Parada, Chairperson  
PO Box 1120 Diegueno/Kumeyaay  
Boulevard , CA 91905  
gparada@lapostacasino.  
(619) 478-2113  
619-478-2125

Kwaaymii Laguna Band of Mission Indians  
Carmen Lucas  
P.O. Box 775 Diegueno -  
Pine Valley , CA 91962  
(619) 709-4207

Manzanita Band of Kumeyaay Nation  
Leroy J. Elliott, Chairperson  
PO Box 1302 Kumeyaay  
Boulevard , CA 91905  
ljbirdsinger@aol.com  
(619) 766-4930  
(619) 766-4957 Fax

Torres-Martinez Desert Cahuilla Indians  
Ernest Morreo  
PO Box 1160 Cahuilla  
Thermal , CA 92274  
maxtm@aol.com  
(760) 397-0300  
(760) 397-8146 Fax

Campo Kumeyaay Nation  
Monique LaChappa, Chairperson  
36190 Church Road, Suite 1 Diegueno/Kumeyaay  
Campo , CA 91906  
**(619) 478-9046**  
miachappa@campo-nsn.gov  
(619) 478-5818 Fax

Fort Yuma Quechan Indian Nation  
Keeny Escalanti, President  
PO Box 1899 Quechan  
Yuma , AZ 85366  
qitpres@quechantribe.com  
(760) 572-0213  
(760) 572-2102 FAX

Kumeyaay Cultural Heritage Preservation  
Paul Cuero  
36190 Church Road, Suite 5 Diegueno/ Kumeyaay  
Campo , CA 91906  
(619) 478-9046  
(619) 478-9505  
(619) 478-5818 Fax

Augustine Band of Cahuilla Mission Indians  
Mary Ann Green, Chairperson  
P.O. Box 846 Cahuilla  
Coachella , CA 92236  
hhaines@augustinetribe.  
(760) 398-6180  
760-369-7161 - FAX

This list is current only as of the date of this document.  
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Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed  
SCH#2011074003; NEPA Notice; draft Environmental Impact Statement (DEIS) for the West Chocolate Renewable Energy Evaluation Area (REEA)  
and California Desert Conservation Area (CDCA) Program Amendment; located on approx. 60,000-acres in eastern Imperial County, California.

**California Native American Contact List**  
Imperial County  
August 30, 2011

Torres-Martinez Desert Cahuilla Indians  
Diana L. Chihuahua, Vice Chairperson, Cultural  
P.O. Box 1160 Cahuilla  
Thermal, CA 92274  
**dianac@torresmartinez.**  
760) 397-0300, Ext. 1209  
(760) 272-9039 - cell (Lisa)  
(760) 397-8146 Fax

Cabazon Band of Mission Indians  
Judy Stapp, Director of Cultural Affairs  
84-245 Indio Springs Cahuilla  
Indio, CA 92203-3499  
**markwardt@cabazonindia**

(760) 342-2593  
(760) 347-7880 Fax

Ewilaapaay Tribal Office  
Will Micklin, Executive Director  
4054 Willows Road Diegueno/Kumeyaay  
Alpine, CA 91901  
**wmicklin@leaningrock.net**  
(619) 445-6315 - voice  
(619) 445-9126 - fax

Ewilaapaay Tribal Office  
Michael Garcia, Vice Chairperson  
4054 Willows Road Diegueno/Kumeyaay  
Alpine, CA 91901  
**michaelg@leaningrock.net**  
(619) 445-6315 - voice  
(619) 445-9126 - fax

Manzanita Band of Mission Indians  
ATTN: Keith Adkins, EPA Director  
PO Box 1302 Kumeyaay  
Boulevard, CA 91905  
(619) 766-4930  
(619) 766-4957 Fax

Campo Kumeyaay Nation  
ATTN: Fidel Hyde, EPA Supervisor  
36190 Church Road, Suite 1 Kumeyaay  
Campo, CA 91906  
**fhyde@campo-nsn.gov**  
(619) 478-9369  
(619) 478-5818 Fax

Cocopah Museum/Cultural Resources Dept  
Jill McCormick, Tribal Archaeologist  
County 15th & Ave. G Cocopah  
Sommerton, AZ 85350  
**culturalres@cocopah.com**  
(928) 530-2291 - cell  
(928) 627-2280 - fax

Manzanita Band of the Kumeyaay Nation  
Nick Elliott, Cultural Resources Coordinator  
P.O. Box 1302 Kumeyaay  
Boulevard, CA 91905  
**nickmepa@yahoo.com**  
(619) 766-4930  
(619) 925-0952 - cell  
(919) 766-4957 - FAX

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**California Native American Contact List**  
Imperial County  
August 30, 2011

Quechan Indian Nation  
THPO  
P.O. Box 1899                      Quechan  
Yuma                      , AZ 85366  
**b.nash@quechantribe.com**  
(928) 920-6068 - CELL  
(760) 572-2423

Ah-Mut-Pipa Foundation  
Preston J. Arrow-weed  
P.O. Box 160                      Quechan  
Bard                      , CA 92222                      Kumeyaay  
ahmut@earthlink.net  
(928) 388-9456

Kumeyaay Cultural Repatriation Committee  
Bernice Paipa, Vice Spokesperson  
P.O. Box 1120                      Diegueno/Kumeyaay  
Boulevard                      , CA 91905  
(619) 478-2113

This list is current only as of the date of this document.  
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and California Desert Conservation Area (CDCA) Program Amendment; located on approx. 60,000-acres in eastern Imperial County, California.



**California Native American Contact List**  
Imperial County  
August 30, 2011

Quechan Indian Nation  
THPO  
P.O. Box 1899                      Quechan  
Yuma                      , AZ 85366  
**b.nash@quechantribe.com**  
(928) 920-6068 - CELL  
(760) 572-2423

Ah-Mut-Pipa Foundation  
Preston J. Arrow-weed  
P.O. Box 160                      Quechan  
Bard                      , CA 92222                      Kumeyaay  
ahmut@earthlink.net  
(928) 388-9456

Kumeyaay Cultural Repatriation Committee  
Bernice Paipa, Vice Spokesperson  
P.O. Box 1120                      Diegueno/Kumeyaay  
Boulevard                      , CA 91905  
(619) 478-2113

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and California Desert Conservation Area (CDCA) Program Amendment; located on approx. 60,000-acres in eastern Imperial County, California.

**California Native American Contact List**  
Imperial County  
August 30, 2011

Ramona Band of Cahuilla Mission Indians  
Joseph Hamilton, Chairman  
P.O. Box 391670  
Anza, CA 92539  
admin@ramonatribe.com  
(951) 763-4105  
(951) 763-4325 Fax

Cahuilla

Fort Mojave Indian Tribe  
Tim Williams, Chairperson  
500 Merriman Ave  
Needles, CA 92363  
(760) 629-4591  
(760) 629-5767 Fax

Mojave

Twenty-Nine Palms Band of Mission Indians  
Darrell Mike, Chairperson  
46-200 Harrison Place  
Coachella, CA 92236  
tribal-epa@worldnet.att.net  
(760) 775-5566  
(760) 808-0409 - cell - EPA  
(760) 775-4639 Fax

Chemehuevi

Colorado River Indian Tribe  
Ginger Scott, Museum Curator; George Ray, Coor  
26600 Mojave Road  
Parker, AZ 85344  
crit.museum@yahoo.com  
(928) 669-9211-Tribal Office  
(928) 669-8970 ext 21  
(928) 669-1925 Fax

Mojave

Chemehuevi

Joseph R. Benítez (Mike)  
P.O. Box 1829  
Indio, CA 92201  
(760) 347-0488  
(760) 408-4089 - cell

Chemehuevi

AhaMakav Cultural Society, Fort Mojave Indian  
Linda Otero, Director  
P.O. Box 5990  
Mohave Valley AZ 86440  
**(928) 768-4475**  
LindaOtero@fortmojave.com  
(928) 768-7996 Fax

Mojave

Chemehuevi Reservation  
Charles Wood, Chairperson  
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(760) 858-5400 Fax

Chemehuevi

Fort Mojave Indian Tribe  
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g.goforth@fortmojave.com  
(760) 629-4591  
(760) 629-5767 Fax

Mojave

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**California Native American Contact List**  
Imperial County  
August 30, 2011

Ramona Band of Cahuilla Indians  
Manuel Hamilton, Vice Chairperson  
P.O. Box 391670      Cahuilla  
Anza, CA 92539  
admin@ramonatribe.com  
(951) 763-4105  
(951) 763-4325 Fax

Agua Caliente Band of Cahuilla Indians THPO  
Patricia Tuck, Tribal Historic Preservation Officer  
5401 Dinah Shore Drive      Cahuilla  
Palm Springs, CA 92264  
(760) 699-6907

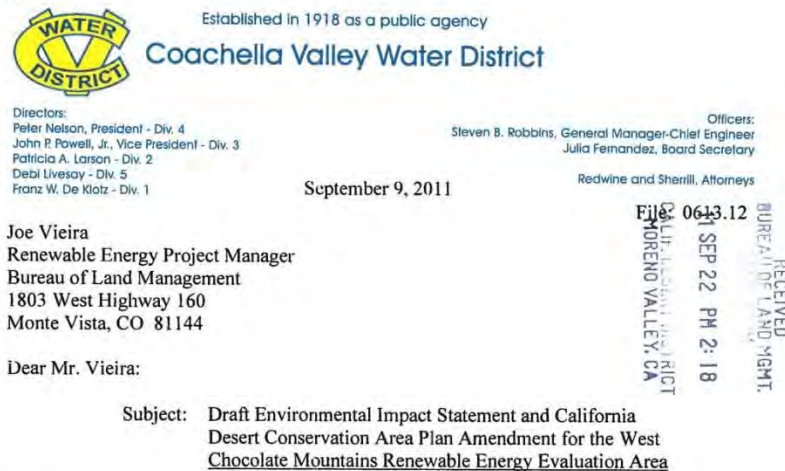
ptuck@augacaliente-nsn.gov  
(760) 699-6924- Fax

Cahuilla Band of Indians  
Luther Salgado, Sr., Chairperson  
PO Box 391760      Cahuilla  
Anza, CA 92539  
tribalcouncil@cahuilla.net  
915-763-5549

Ernest H. Siva  
Morongo Band of Mission Indians Tribal Elder  
9570 Mias Canyon Road      Serrano  
Banning, CA 92220      Cahuilla  
siva@dishmail.com  
(951) 849-4676

This list is current only as of the date of this document.  
Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,  
Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed  
SCH#2011074003; NEPA Notice; draft Environmental Impact Statement (DEIS) for the West Chocolate Renewable Energy Evaluation Area (REEA)  
and California Desert Conservation Area (CDCA) Program Amendment; located on approx. 60,000-acres in eastern Imperial County, California.



The Coachella Valley Water District (CVWD) appreciates the opportunity to review the Bureau of Land Management's (BLM) Administrative Draft Environmental Impact Statement for the West Chocolate Mountains Renewable Energy Evaluation Area project located in portions of Riverside and Imperial counties along the eastern side of the Salton Sea. CVWD provides domestic water, wastewater, recycled water, irrigation/drainage, regional stormwater protection and groundwater management services to a population of 265,000 throughout the Coachella Valley in Southern California.

At this time, CVWD submits the following comments regarding the proposed project:

SLA6-1

1. There are existing stormwater facilities (training dikes) on this land that are owned in fee by the US Bureau of Reclamation and operated and maintained by CVWD. These facilities convey flood flows from the Chocolate Mountains to the Coachella Canal siphons (subsurface portions of the canal), which allow flows to be conveyed over the siphons to the westerly side of the canal where it is redistributed as sheet flow. Due to unexploded ordinance, the USMC has restricted CVWD from maintaining various training dikes, particularly at Siphon No. 9. CVWD needs to be able to access these facilities to ensure that the dikes can withstand a large flood to protect the canal and downstream properties from severe flooding. There is also a concern that bombing activities on the alluvial fans may result in bomb remnants being carried downstream onto private property during heavy rainfall events.

SLA6-2

2. The land ownership maps do not recognize the Bureau of Reclamation as land owners of training dikes along the east side of Coachella Canal.



**SLA6-1.** Comment noted. This information will be added to Section 3.5.2.3.

**SLA6-2.** The scale of Figure 3.12-1 is such that the land ownership of training dikes along the east side of Coachella Canal cannot be called out graphically. The FEIS will be revised to include a footnote on Figure 3.12-1 reflecting training dike ownership and a text revision in Section 3.5, Water Resources, will note the same.



Joe Vieira  
Bureau of Land Management

2

September 9, 2011

If you have any questions, please contact Luke Stowe, Senior Environmental Specialist, at extension 2545.

Very truly yours,



Mark L. Johnson  
Director of Engineering

LS:pr/eng/env/11/sept/Joe Vieira-Bureau of Land Management



September 27, 2011

Mr. Joseph Vieira  
Bureau of Land Management  
El Centro Field Office  
1661 S. 4<sup>th</sup> Street  
El Centro, California 92243

DRAFT ENVIRONMENTAL IMPACT STATEMENT AND CALIFORNIA DESERT  
CONSERVATION AREA PLAN AMENDMENT FOR THE WEST CHOCOLATE  
MOUNTAINS RENEWABLE ENERGY EVALUATION AREA (SCH# 2011074003)

Dear Mr. Vieira:

The Department of Toxic Substances Control (DTSC) has received your submitted Notice of Preparation of the Environmental Impact Report for the above-mentioned project. The following project description is stated in your document: "The Bureau of Land Management (BLM) has prepared this Environmental Impact Statement (EIS) and California Desert Conservation Area (CDCA) Plan Amendment to evaluate the potential environmental impacts of allocating federal mineral estate (not including acquired lands) for geothermal energy leasing, testing, and development of geothermal power generation facilities on public lands downslope from the West Chocolate Mountains near Niland, California. This EIS is also prepared to concurrently evaluate the potential environmental impacts of allocating BLM-administered federal surface estate in the same planning area for testing and development of solar and wind power generation facilities through rights-of-way (ROWs) authorizations. BLM defines this combined renewable energy planning area and analytical scope as the West Chocolate Mountains Renewable Energy Evaluation Area (West Chocolate REEA, or the REEA)

The West Chocolate REEA, located in Imperial County, California is within the boundaries of the CDCA. The REEA is south of Riverside County, north of the City of Calipatria, east of the Salton Sea, and west of the Chocolate Mountains in north central Imperial County, California. The REEA (BLM and non-BLM land) consists of approximately 59,095 acres. Within the West Chocolate REEA are 31,551 acres of private lands, 3,200 acres of land managed by the California State Lands Commission (CSLC), 1,782 acres of split estate land (private surface/federal minerals), and 2,862 acres of land acquired from the Catellus Corporation by the Wildlands Conservancy using Lands and Water Conservation Fund (LWCF) money and donated to the BLM. The acquired lands are not available for geothermal leasing. In addition, there are 1,800 acres of land (federal surface/federal minerals) withdrawn for use by the Bureau of

Mr. Joseph Vieira  
September 27, 2011  
Page 2

Reclamation (BOR) and are also not open for surface occupancy or geothermal leasing BLM land within the REEA that will be considered for renewable energy projects consists of 20,762 acres of land that contain federal surface and 19,162 acres of land with federal mineral estate and that are managed by the BLM El Centro Field Office. The 1,782 acres of surface land in the split estate are included in the 31,551 acres of private land mentioned earlier".

Based on the review of the submitted document DTSC has the following comments:

**SLA7-1**

- 1) The EIS should evaluate whether conditions within the project area may pose a threat to human health or the environment. Following are the databases of some of the regulatory agencies:

- National Priorities List (NPL): A list maintained by the United States Environmental Protection Agency (U.S.EPA).
- Envirostor (formerly CalSites): A Database primarily used by the California Department of Toxic Substances Control, accessible through DTSC's website (see below).
- Resource Conservation and Recovery Information System (RCRIS): A database of RCRA facilities that is maintained by U.S. EPA.
- Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS): A database of CERCLA sites that is maintained by U.S. EPA.
- Solid Waste Information System (SWIS): A database provided by the California Integrated Waste Management Board which consists of both open as well as closed and inactive solid waste disposal facilities and transfer stations.
- GeoTracker: A List that is maintained by Regional Water Quality Control Boards.
- Local Counties and Cities maintain lists for hazardous substances cleanup sites and leaking underground storage tanks.
- The United States Army Corps of Engineers, 911 Wilshire Boulevard, Los Angeles, California, 90017, (213) 452-3908, maintains a list of Formerly Used Defense Sites (FUDS).

**SLA7-2**

- 2) The EIS should identify the mechanism to initiate any required investigation and/or remediation for any site that may be contaminated, and the government

**SLA7-1.** Data sources should be reviewed prior to project implementation. At this stage of planning, there is not a specific project that would be implemented; however, when a specific project is proposed, the data sources that were recommended by DTSC will be reviewed to ensure health and safety.

**SLA7-2.** Comment noted. At this stage of planning, there is not a specific project that would be implemented; however, when a specific project is proposed, the data sources that were recommended by DTSC would be reviewed to ensure health and safety. In addition, best practices would be incorporated as project-specific measures to reduce risks and impacts to health and safety for workers and the environment.

Mr. Joseph Vieira  
September 27, 2011  
Page 3

agency to provide appropriate regulatory oversight. If necessary, DTSC would require an oversight agreement in order to review such documents.

**SLA7-3**

3) Any environmental investigations, sampling and/or remediation for a site should be conducted under a Workplan approved and overseen by a regulatory agency that has jurisdiction to oversee hazardous substance cleanup. The findings of any investigations, including any Phase I or II Environmental Site Assessment Investigations should be summarized in the document. All sampling results in which hazardous substances were found above regulatory standards should be clearly summarized in a table. All closure, certification or remediation approval reports by regulatory agencies should be included in the EIS.

**SLA7-4**

4) If buildings, other structures, asphalt or concrete-paved surface areas are being planned to be demolished, an investigation should also be conducted for the presence of other hazardous chemicals, mercury, and asbestos containing materials (ACMs). If other hazardous chemicals, lead-based paints (LPB) or products, mercury or ACMs are identified, proper precautions should be taken during demolition activities. Additionally, the contaminants should be remediated in compliance with California environmental regulations and policies.

**SLA7-5**

5) Future project construction may require soil excavation or filling in certain areas. Sampling may be required. If soil is contaminated, it must be properly disposed and not simply placed in another location onsite. Land Disposal Restrictions (LDRs) may be applicable to such soils. Also, if the project proposes to import soil to backfill the areas excavated, sampling should be conducted to ensure that the imported soil is free of contamination.

**SLA7-6**

6) Human health and the environment of sensitive receptors should be protected during any construction or demolition activities. If necessary, a health risk assessment overseen and approved by the appropriate government agency should be conducted by a qualified health risk assessor to determine if there are, have been, or will be, any releases of hazardous materials that may pose a risk to human health or the environment.

**SLA7-7**

7) If it is determined that hazardous wastes are, or will be, generated by the proposed operations, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5). If it is determined that hazardous wastes will be generated, the facility should also obtain a United States Environmental Protection Agency Identification Number by contacting (800) 618-6942. Certain hazardous waste treatment processes or hazardous materials, handling, storage or uses may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for authorization can be obtained by contacting your local CUPA.

**SLA7-3.** Refer to Response to Comment SLA7-2.

**SLA7-4.** Refer to Response to Comment SLA7-2. This will be included in Appendix I-A4 under Hazardous Materials, Pesticides, and Waste Management as Mitigation Measures and Best Management Practices.

**SLA7-5.** Refer to Response to Comment SLA7-2 and 7-4.

**SLA7-6.** Refer to Response to Comment SLA7-2 and 7-4.

**SLA7-7.** Refer to Response to Comment SLA7-2 and 7-4.



**SLA7-8.** Refer to Response to Comment SLA7-2 and 7-4.

Mr. Joseph Vieira  
September 27, 2011  
Page 4

**SLA7-8**

- 8) DTSC can provide cleanup oversight through an Environmental Oversight Agreement (EOA) for government agencies that are not responsible parties, or a Voluntary Cleanup Agreement (VCA) for private parties. For additional information on the EOA or VCA, please see [www.dtsc.ca.gov/SiteCleanup/Brownfields](http://www.dtsc.ca.gov/SiteCleanup/Brownfields), or contact Ms. Maryam Tasnif-Abbasi, DTSC's Voluntary Cleanup Coordinator, at (714) 484-5489.

If you have any questions regarding this letter, please contact me at [ashami@dtsc.ca.gov](mailto:ashami@dtsc.ca.gov), or by phone at (714) 484-5472.

Sincerely,



Al Shami  
Project Manager  
Brownfields and Environmental Restoration Program

cc: Governor's Office of Planning and Research  
State Clearinghouse  
P.O. Box 3044  
Sacramento, California 95812-3044  
[state.clearinghouse@opr.ca.gov](mailto:state.clearinghouse@opr.ca.gov)

CEQA Tracking Center  
Department of Toxic Substances Control  
Office of Environmental Planning and Analysis  
P.O. Box 806  
Sacramento, California 95812  
[nritter@dtsc.ca.gov](mailto:nritter@dtsc.ca.gov)

CEQA # 3285

▼ "Greenwood, Barbara" <BGREENWOOD@parks.ca.gov>

"Greenwood, Barbara"  
<BGREENWOOD@parks.ca.gov>  
To "jvieira@blm.gov" <jvieira@blm.gov>  
cc  
08/22/2011 12:32 PM  
Subject West Chocolate Mountains REEA

Hi Joe,

**SLA8-1**

I'm in the process of reviewing the Draft EI for the West Chocolate Mountains REEA and was looking for the number of miles of OHV routes within the REEA and have not been able to find this number. Would you please let me know the miles of OHV routes that are currently available in the REEA? And the miles of routes that would be affected?

Your help with this is appreciated!

Barbara Greenwood | Grants Administrator  
California State Parks | Off-Highway Motor Vehicle Recreation Division  
1725 23rd Street, Suite 200 | Sacramento, CA 95816  
916.322.2651 desk  
916.324.1610 fax

**SLA8-1.** There are 207 miles of OHV routes in the REEA. No OHV routes are affected by this planning initiative, however, all of them have the potential to be affected in the future, depending on the degree of development that occurs.

**SLA9-1.** The FEIS has been revised to reflect this.



GS-EREP

September 26, 2011

Mr. Peter Godfrey  
California Desert District  
Bureau of Land Management  
22835 Calle San Juan De Los Lagos  
Moreno Valley, CA 92553

SUBJECT: DEIS for the West Chocolate Mountains Renewable Energy Evaluation Area, Imperial Valley, California, and the Draft California Desert Conservation Plan Amendment

Dear Mr. Godfrey:

On July 1, 2011, the Notice of Availability of the Draft Environmental Impact Statement (DEIS) and the Draft California Desert Conservation Area (CDCA) Plan Amendment for the West Chocolate Mountains Renewable Energy Evaluation Area (REEA) was published in the Federal Register. The DEIS analyzes the potential environmental impacts associated with amending the CDCA to make available approximately 20,762 acres of BLM-managed surface lands (acquired lands included) for solar, wind and geothermal testing and development in a renewable energy evaluation area located near Niland, California. The DEIS also analyzes the potential environmental impacts of approving a pending geothermal lease application within the renewable energy evaluation area. The DEIS analyzes six alternatives.

The Administrative DEIS (ADEIS) was circulated for review on February 5, 2011. On March 22, 2011, a webinar to review and clarify the ADEIS was held by BLM for IID staff. IID comments on the ADEIS were submitted to BLM on March 22, 2011.

Pursuant to the above, the Imperial Irrigation District (IID) submits the following comments on the DEIS:

1. Page ES-27 Water Resources contains a summary that is not accurate with the explanations for Water Resources in other locations in the document. IID recommends changing the following sentences:

*"The water for these purposes would likely be obtained from its apportionment of the Colorado River. Some water rights could also be purchased from landowners."*

to

*"The water for renewable projects could possibly be purchased from the Imperial Irrigation District in accordance with its Integrated Regional Water Management Plan (IRWMP). Additionally, water could possibly be purchased from current water users under some circumstances."*

2. IID comments provided on March 22, 2011 continue to apply:

IMPERIAL IRRIGATION DISTRICT  
OPERATIONAL HEADQUARTERS • BOX 103, 917 • IMPERIAL, CA 92531

**SLA9-1**

**SLA9-2**

2.1 IID facilities that may be impacted include East Highline Canal, I Lateral, J Lateral, K Lateral, L Lateral, M Lateral, N Lateral, Niland Lateral 5, Niland Lateral 4, Niland Lateral 3, Niland Lateral 2, O Lateral, P Lateral, Q Lateral, R side Main Canal, W Lateral, X Lateral, Y Lateral, Z Lateral, Q Drain, and X Drain.

**SLA9-3**

2.2 On page ES-17, Water Resources, the last sentence of that paragraph, should specify that "some" water rights to be purchased from landowners are not located within IID's water service area. IID holds water rights in trust within its water service area.

**SLA9-4**

2.3 On page 4-80, Water Resources, groundwater located near unlined IID water facilities could be the result of seepage and would be subject to restrictions. Imperial County oversees groundwater issues.

**SLA9-5**

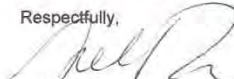
3. Any construction or operation on IID property or within its existing and proposed right of way or easements will require an encroachment permit, including but not limited to: surface improvements such as proposed new streets, driveways, parking lots, landscape; and all water, sewer, storm water, or any other above ground or underground utilities. A copy of the encroachment permit application is included in the IID's *Developer Project Guide 2008*. The guide can be accessed at the following web site: <http://www.iid.com/Modules/ShowDocument.aspx?documentid=2328>. Also, instructions for the completion of encroachment applications can be found at <http://www.iid.com/Modules/ShowDocument.aspx?documentid=2335>. The IID Real Estate Section should be contacted at (760) 339-9239 for additional information regarding encroachment permits.

**SLA9-6**

4. Any new, relocated, upgraded or reconstructed IID facilities required for and by the project (which can include but is not limited to electrical utility substations, electrical transmission and distribution lines, etc.) need to be included as part of the project's CEQA and/or NEPA documentation, environmental impact analysis and mitigation. Failure to do so will result in postponement of any construction and/or upgrade of IID facilities until such time as the environmental documentation is amended and environmental impacts are fully mitigated. **Any and all mitigation necessary as a result of the construction, relocation and/or upgrade of IID facilities is the responsibility of the project proponent.**

Should you have any questions, please do not hesitate to contact me by phone at 760-482-3609 or by e-mail at [dvargas@iid.com](mailto:dvargas@iid.com). Thank you for the opportunity to comment on this matter.

Respectfully,



Donald Vargas  
Environmental Specialist

Carlos Villalon - Manager, Water Dept.  
Mike L. King - Manager, Water Dept.  
Jeff M. Garber - General Counsel  
Juan Carlos Sandoval - Asst. Mgr. Energy Dept.  
Joel Ivy - Asst. Mgr. Energy Dept.  
Carlton L. King - Asst. Mgr. Energy Dept. Customer Service Operations  
Tina Shields - Asst. Mgr. Water Dept. Resources Planning & Management  
David L. Barajas - General Supt., Energy Dept. System Planning & Engineering  
Michael S. Trump - General Supt., Energy Dept. Customer Operations & Planning  
Ismael Gomez - Chief Engineer, Water Dept. Engineering Services  
Bruce Wilcox - Environ. Proj. Mgr., Water Dept. QSA Water Transfer  
James P. Kelley - Supervisor, Real Estate & Right-of-Way  
Vikki Dee Bradshaw - Asst. Supv., Environmental Management

**SLA9-2.** Table 3.5-1 lists the named water resources in the REEA along with the owners.

**SLA9-3.** The Executive Summary of the FEIS has been revised to reflect this.

**SLA9-4.** The FEIS has been revised to reflect this.

**SLA9-5.** The FEIS has been revised to reflect this.

**SLA9-6.** The FEIS has been revised to reflect this.



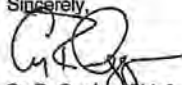
Mr. Peter Godfrey

Page 4

September 28, 2011

CSLC staff appreciates the opportunity to review and comment on the draft EIS and looks forward to further communication from the BLM. Please send copies of future Project-related documents or refer questions concerning environmental review to Joan Walter, Environmental Scientist, at (916) 574-1310 or via e-mail at [joan.walter@slc.ca.gov](mailto:joan.walter@slc.ca.gov). For information concerning the management, leasing, and sale of State school lands, please contact Jim Porter, Public Land Management Specialist, at (916) 574-1865 or via email at [jim.porter@slc.ca.gov](mailto:jim.porter@slc.ca.gov).

Sincerely,



Cy R. Oggins, Chief  
Division of Environmental Planning  
and Management

cc: Office of Planning and Research  
J. Porter, LMD, CSLC  
J. Walter, DEPM, CSLC  
J. Adams, MRM, CSLC

## **Comments and Responses**

### **Companies and Organizations**

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**CO1-1.** No specific geothermal project has been proposed in the DEIS. This is a programmatic document that evaluates the potential impact of opening the West Chocolate Mountains REEA to geothermal leasing. There is a geothermal lease application (640 acres) pending within the West Chocolate REEA that is being evaluated as part of this EIS, but there is no specific information available on the project's name or size.

**CO1-1**

"Janet M. Laurain"  
<jlaurain@adamsbroadwell.com>  
07/01/2011 12:08 PM  
To: "jvieira@blm.gov" <jvieira@blm.gov>  
cc:  
Subject: RE: West Chocolate Mountains Renewable Energy Evaluation Area DEIS

Joe,

Can you please tell me the name and size of the geothermal project that is evaluated in the DEIS?

Thank you!

Janet

Janet M. Laurain  
Adams Broadwell Joseph & Cardozo  
(650) 589-1660  
jlaurain@adamsbroadwell.com

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**CO2-1.** The legal description of the West Chocolate Mountains REEA boundary is referenced in Appendix H. Also, Section 1.2. describes the REEA boundary.

"John Grego"  
<johng@vtnnv.com>  
To: <jvieira@blm.gov>  
cc:  
07/14/2011 02:59 PM Subject: WCM - Request for Information

Mr. Vieira,

**CO2-1**

Our client has asked us to compile and map information pertaining to the West Chocolate Mountains Renewable Energy Evaluation Area, and although I have the land status and other GIS data, I cannot find the geometry or legal description of the "Evaluation Area" boundary referenced in the attached PDF. Would you be able to provide that information to me, or point me to a reliable source?

Your assistance in this matter would be greatly appreciated.

Thank you.

**John Grego**

GIS Manager

**VTN**

2727 S. Rainbow Blvd.  
Las Vegas, NV 89146-5148

Phone: (702) 253-2425

Fax: (702) 362-2597

Web: [vtnnv.com](http://vtnnv.com)

[attachment "West Chocolate Mountains Renewable Energy Evaluation Area.pdf"  
deleted by Joseph Vieira/MVFO/CO/BLM/DOI]

DEFENDERS OF WILDLIFE  
NATURAL RESOURCES DEFENSE COUNCIL \* THE SIERRA CLUB  
THE WILDERNESS SOCIETY

September 29, 2011

California Desert District  
22835 Calle San Juan De Los Lagos  
Moreno Valley, CA 92553  
Attn: Peter Godfrey

Via U.S. Postal and email (wcm\_comments@blm.gov)

Re: Draft Environmental Impact Statement for the West Chocolate Mountains Renewable Energy Evaluation Area  
(DOI No. DES 11-21) (BLM/CA/ES-2011-13+1793)

Dear Mr. Godfrey:

This letter transmits the joint comments on the Draft Environmental Impact Statement (DEIS) for the West Chocolate Mountains Renewable Energy Evaluation Area (DOI No. DES 11-21) (BLM/CA/ES-2011-13+1793) of the Natural Resources Defense Council (NRDC), Defenders of Wildlife, The Sierra Club, and The Wilderness Society, membership organizations with long histories of advocacy on behalf of the lands and resources administered by the Bureau of Land Management (BLM).

NRDC has over 1.2 million members and online activists nationwide. NRDC uses law, science, and the support of its members and activists to protect the planet's wildlife and wild places and to ensure a safe and healthy environment for all living things. NRDC has worked to protect wildlands and natural values on public lands and to promote pursuit of all cost-effective energy efficiency measures and sustainable energy development for many years.

Defenders of Wildlife is a national environmental organization founded in 1947 with 1.1 million members and supporters in the United States, including 67,000 in California. Defenders of Wildlife is dedicated to protecting all wild animals and plants in their natural communities. To this end, we employ science, public education and participation, media, legislative advocacy, litigation and proactive on-the-ground solutions in order to prevent the extinction of species, associated loss of biological diversity, and habitat alteration and destruction.

The Sierra Club is a national nonprofit organization of approximately 1.3 million members and supporters (approximately 250,000 of whom live in California) dedicated to exploring, enjoying, and protecting the wild places of the earth; to practicing and promoting the responsible use of the earth's ecosystems and resources; to educating and enlisting humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out these objectives. The Sierra Club's concerns encompass protecting our public lands, wildlife, air and water while at the same time rapidly increasing our use of renewable energy to reduce global warming.

The mission of The Wilderness Society is to protect wilderness and inspire Americans to care for our wild places. We have worked for more than 75 years to maintain the integrity of America's wilderness and public lands and ensure that land management practices are sustainable and based on sound science to ensure that the ecological integrity of the land is maintained. With over 500,000 members and supporters nation-wide, TWS represents a diverse range of citizens.

Our organizations recognize the urgent need to develop renewable energy resources and to do so rapidly in order to respond effectively to the challenge of climate change. We also recognize that renewable energy development can help create promising jobs in communities that are eager for them. For these and other related reasons, we are working with regulators and project proponents to move pending utility-scale renewable energy projects forward. That said, renewable energy development is not appropriate everywhere on our public lands and must be balanced against the equally urgent need to protect important environmental, scenic, cultural, and biological resources.

We have been intensively involved in BLM's work to develop renewable energy projects and comprehensive programs for our public lands. In our view, the best way to develop renewable resources is through comprehensive, pro-active planning by federal, state and local governments, cultural resource specialists, environmentalists, conservationists, developers and members of the public to identify the most appropriate areas for such development on both public and private lands, combined with the adoption of policies and other measures that will guide development to such areas. Energy generation should occur foremost in areas already disturbed, in areas with the fewest environmental impacts, as close to the target load centers as possible, and in a manner that reduces impacts to the area's wildlife species, scenic qualities and other important resources.

We appreciate the Bureau's consideration of the West Chocolate Mountains Renewable Energy Evaluation Area as a means of moving towards our collective goals. In fact, in March 2009 members of the environmental community recommended to the BLM that the agency consider lands in the West Chocolate Mountains area as a potential renewable energy zone (see Attachment 1 for map). This area was identified as potentially appropriate for development for a number of reasons including the checkerboard land ownership pattern, the prevalence of farming and other disruptive activities including a very active railroad right of way with at least two heavily used tracks, lower general biological value than other pristine areas of the CDCA being considered for renewable energy development such as the potential Iron Mountain and Pisgah Solar Energy Zones, and truncated habitat west of the aqueduct. Members of the environmental community conducted site visits to the area as part of our preliminary evaluation in addition to drawing upon resource data available at the time.

The process the BLM has started here is much closer, in our estimation, to the kind of process that is needed to deal with renewable energy development on the public lands in an environmentally responsible manner. In the comments that follow, our organizations have highlighted issues which we believe deserve additional attention as this review process moves forward.

Purpose and Need Statement and Applicable Federal Policies, Plans, and Programs

At page 1-10 of the DEIS, BLM states that the purpose of the proposed action is to "facilitate appropriate development of geothermal, solar, and wind energy in the West Chocolate REEA by identifying the existing resources associated with the land in the REEA and making appropriate land use plan decisions regarding the location, development, and management of those resources, including the identification of reasonable stipulations and measures to mitigate the impacts related to geothermal, solar, and wind energy testing and development" and also "to determine whether to approve a lease for federal geothermal resources on public lands with a pending noncompetitive lease application in the West Chocolate REEA."

As identified on page 1-11 of the DEIS, "the need for the proposed federal action arises from pending renewable energy applications, national policy, and Congressional direction. The BLM has identified a need to respond in a more efficient manner to the high interest in siting renewable energy projects on public lands, including geothermal plants and utility-scale solar and wind projects, and to ensure consistent application of measures to mitigate the adverse impacts of such development."

We have repeatedly raised questions about the purpose and need statement of project-specific EISs in the past. See, e.g., Final Staff Assessment and Draft Environmental Impact Statement and Draft California Desert Conservation Area Plan Amendment – Ivanpah Solar Electric Generating System 2, 7, and Draft Environmental Impact

Statement and Draft California Desert Conservation Plan Amendment - Blythe Solar Power Plant A-11]. In the context of this particular analysis, however, we are satisfied with this statement of purpose and need.

At various places in the document (e.g. Sections 1-5 [Page 1-12], 2-1-2 [Page 2-4], 2-2-3-1 [Page 2-15]), BLM provides a list of areas to be excluded from the renewable energy suitability determination, including "areas falling within environmentally sensitive federal lands such as national parks or wilderness areas." We support the identification of such areas as part of this particular planning effort and recommend the expansion of this list to include any Wilderness Study Areas or candidate areas identified in legislative proposals.

We also appreciate the list and description (found at Pages 1-12 to 22) of applicable federal, state, and local policies and plans that inform the evaluation of the area for renewable energy potential. We found this material to be unusually thorough for a document of this type.

Alternatives

**CO3-1**

The DEIS analyzes six alternatives, including four action alternatives, a no action alternative, and a no development alternative. We note that both the Center for Biological Diversity (CBD) and the U.S. Environmental Protection Agency (EPA) suggested analysis of alternative locations and technologies during the scoping process. Pages 2-52 and 53 outline BLM's treatment of alternatives which were considered but eliminated from further analysis. We found this material confusing, and do not believe that the agency's rationale for exclusion has been fully explained.

**CO3-2**

We note that BLM identified Alternative 6 as its preferred alternative at Page ES-9, but did not identify a preferred alternative in Chapter 2 on Alternatives. Regardless, we appreciate the identification of a preferred alternative at this stage of the environmental analysis, because it helps to clarify BLM's intentions with respect to the planning area and allows stakeholders to focus their review efforts during the commenting process. The Bureau's preference for Alternative 6 appears to be reasonable based on the information available at this point and the array of alternatives currently presented. We recommend that if this alternative is selected, it be modified to include setbacks for shoreline and riparian areas discussed below under "Resource Impacts", which would protect high-value wildlife habitats and movement corridors.

**CO3-3**

The DEIS acknowledges data gaps at Page 2-2, and we request clarification of BLM's plans to obtain any additional information necessary to complete its analysis: "Relative to other planning areas, the presence or absence of several of these resources in the West Chocolate REEA is not well known. For example, the REEA has not been the subject of intensive cultural resource or biological resource surveys. Although some general studies have been conducted, they have been limited in their scope and a complete inventory for cultural or biological resources has not been performed."

**CO3-4**

We appreciate the discussion of constraints due to water usage needs and potential conflicts with military airspace operations found at Page 2-21. Particularly with respect to water usage, we believe this information provides valuable guidance to potential renewable energy developers interested in proposing projects in environments where water is scarce. As we stated in our comments on the Solar Programmatic Environmental Impact Statement (PEIS), the BLM should explicitly adopt water use policies in California that are consistent with the California Energy Commission (CEC) policy but are stronger in their evaluation of alternative water supply sources. The current CEC policy allows for economic impacts to drive alternative water supply source decisions. We are strongly recommending that BLM should prioritize *environmental* than economic impacts in their analysis of feasibility. This recommendation stands not just for the solar zones being considered under the PEIS but also for the West Chocolate Mountains REEA.

Zone Boundaries

The map submitted by environmental stakeholders to the BLM in March 2009 and then again as an attachment to comments on the Solar PEIS in April 2011 (see Attachment 1) identified a potential renewable energy zone in the West Chocolate Mountains area that extended as far north as Niland and did not include the Salton Sea shoreline.

**CO3-1.** Section 2.4 has been revised to better explain BLM's rationale for why certain alternatives were eliminated from detailed analysis.

**CO3-2.** Comment noted. There is no Preferred Alternative in the Proposed Plan Amendment/FEIS.

**CO3-3.** Additional habitat assessments and baseline surveys were performed by BLM in the fall of 2011. The data, along with additional data on the locations of burrowing owls collected by IID, have been added to Section 3.8. More specific information would be gathered and considered, as appropriate, during decision making regarding individual projects in the future, when more is known about specific locations and technologies to be used.

**CO3-4.** As required under NEPA and the CEQ regulations, the EIS objectively evaluates impacts to the quality of the human environment from a variety of alternatives, rather than prescribing any particular outcome. The Record of Decision for this planning initiative will consider all factors appropriate under the FLPMA, and its other statutory authorities, including, but not limited to environmental, economic, and social factors in order to arrive at a decision that best meets BLM's purpose and need for the project.



The boundary was drawn specifically to exclude sensitive resources on and around the Salton Sea shoreline that have been identified by other efforts looking at this unique landscape such as the state of California's Salton Sea Ecosystem Restoration Program. For further detail on these resources see discussion of "Resource Impacts" below. The map included in the DEIS for the West Chocolate Mountains REEA extends much further north and encompasses the Salton Sea shoreline. We recommend that the BLM pull back the boundary of the proposed REEA further south to avoid the known biological resources on the Salton Sea shoreline.

#### Resource Impacts

Salton Sea Shoreline and Riparian Habitats: In scoping comments submitted by Defenders of Wildlife (letter dated 3/12/2010), higher value and sensitive habitats for various species associated with the shoreline habitats of the Salton Sea, and riparian habitats located in drainages that traverse the planning area, were recommended for protection from surface disturbing activities of renewable energy development. Although a specific protection zone or buffer distance was not provided in the scoping comment recommendations, the DEIS indicates a 100 foot zone would be established. We are pleased BLM has recognized the need to protect aquatic and riparian habitats from potential development.

Based on our examination of numerous publications and studies on riparian buffers and corridors, we recommend that the surface protective zone for buffers and corridors be expanded to a minimum of 100 meters from the edge of the wetlands and riparian areas in all drainages. The appropriate protective zone around the Salton Sea estuary and shoreline should be established through collaboration with the California Department of Fish and Game and U.S. Fish and Wildlife Service, but should be at least 100 meters wide and extend the entire length of the affected shoreline to provide adequate protection for water quality and wildlife feeding, breeding and sheltering. For guidance on buffer and corridor widths see Fischer and Fischenich (2000)<sup>1</sup> and Semlitsch and Bodie (2003).<sup>2</sup> We recommend that BLM establish scientifically-based protection zones consistent with recommendations in these publications and in collaboration with the previously mentioned agencies.

#### Wildlife

As the DEIS notes, a number of sensitive species are known to inhabit the proposed zone but no critical habitat has been designated at this time. (ES-19). The DEIS also acknowledges that the biological survey data for this area is limited. Given this fact, the areas known to support sensitive species should be identified to a reasonable degree in the FEIS so that areas that are appropriate for development can be distinguished from areas that are not appropriate for development due to the occurrence of sensitive species. In addition, the FEIS should identify impact avoidance and minimization requirements. Project level environmental review would of course require additional detail with regard to species impacts, including full protocol surveys.

Among the sensitive or special status species that are known or have a high probability of occurring in the area are the following, as noted in the DEIS:

- Couch's spadefoot toad
- Flat-tailed horned lizard
- Yuma clapper rail
- Burrowing owl
- Yellow-breasted chat
- Yellow warbler
- California leaf-nosed bat
- Nelson's bighorn sheep

<sup>1</sup> Fischer, R. A. and J. C. Fischenich. 2000. Design recommendations for riparian corridors and vegetated buffer strips. ERDC TN-EMRRP-SR-24. U.S. Army Engineer Research and Development Center, Environmental Laboratory, 3909 Halls Ferry Rd., Vicksburg, MS 39180. 17 pp.

<sup>2</sup> Semlitsch, R.D. and J.R. Bodie. 2003. Biological criteria for buffer zones around wetlands and riparian habitats for amphibians and reptiles. Conservation Biology, Vol. 17, No. 5, October 2003, Pages 1219-1228.

**CO3-5.** A figure has been added to the FEIS to illustrate known or potential occurrences of special status species and their habitat. Section 3.8.3.2 provides a description of the preferred habitat for each special status wildlife species with potential to occur in the REEA and identifies if, and where, the species has been observed within the REEA. Although avoidance and minimization measures are best established when specific actions are being considered. Appendices IA and IB include BMPs that can be identified at this time for use where appropriate.

CO3-5

**CO3-6**

There are other sensitive species with low to moderate potential of occurring in the area, including the threatened Desert tortoise, Colorado Desert fringe-toed lizard (BLM sensitive), endangered Desert pupfish, endangered Southwestern willow flycatcher, endangered Least Bell's vireo, state threatened Black rail, and others listed in the DEIS on Table 2.8-2. Again, we stress the importance of identifying habitats for these species in the FEIS, and clearly identifying impact avoidance and minimization measures that can be used to further the protection and conservation of these important biological resources.

**CO3-7**

In addition to providing further analysis regarding the above species, the FEIS and project level environmental review must take into consideration the existence of wildlife corridors – in the presence of perennial streams and ephemeral streams and washes - in the proposed zone.

#### Cultural Resources

These comments on the proposed Chocolate Mountain REEA offer limited commentary on cultural resources. They do not address these issues in depth because we lack the necessary expertise to do so. With that said, we strongly believe the BLM must do a better job going forward of considering these resources, consulting with tribes, and complying with the applicable laws regarding cultural resources. Not only are these resources extraordinarily important but the litigation filed last year proves the need for the Bureau to conduct more robust analysis than was completed during the first round of fast track solar projects. The BLM has an obligation to conduct adequate surveys, analysis, avoidance and mitigation in the NEPA process.

With regard to the West Chocolate Mountains area specifically, we are aware of the cultural significance of the historic Salton Sea shoreline and special attention must be paid to this area with regard to cultural resources.

In light of the potential for additional cultural and historic sites in the vicinity of the proposed zone, and the lack of survey information within the zone, we are recommending a two-phased approach to increase the quality and amount of data in a relatively cost effective and timely manner. The first is to develop a predictive model using existing data from surrounding areas within the same physiographic and cultural areas. The model should allow the agency to better extrapolate what kinds, location, and quality of sites will likely occur in areas that are to be inventoried. The second part includes completing a sample survey to bring the percentage of the inventory up. This will help the agency with selection and boundary adjustments before the final EIS is completed. The agency will be more likely to predict issues that may arise during the required Section 106 compliance. This will also assist the developer to avoid areas that are likely to contain significant cultural resources and the subsequent costs of data recovery or project adjustment.

In addition the environmental review for any projects permitted within approved the REEA must include the complete assessment, avoidance and mitigation of cultural impacts, rather than conducting the cultural resource analysis separately and outside of the public review process. Any need for confidentiality regarding specifics of cultural and historic resources would of course be honored during this review.

Our comments on cultural resources in the draft Solar PEIS seem appropriate here as well. The draft EIS should clearly state that a Record of Decision on the final EIS does not preclude or substitute for the continuing process of consultation with parties in order to comply with Section 106 of the National Historic Preservation Act during subsequent project specific EIS determinations, and that requirements of Section 106 have not yet been met. In order to comply with both the requirements and intent of the NHPA and other obligations for consultation, the final EIS must set out more specific requirements and commitments for inventory and consultation.

#### Transmission

Adequate transmission capacity is a key element in successful zoning for renewable energy development. The DEIS provides a fair amount of general commentary on transmission but does not currently reflect the important fact that there are transmission enhancements planned for the area.

**CO3-6.** Refer to Response to Comment CO3-5.

**CO3-7.** A measure has been added to the Biological Resource section of Appendix I-A2 that will require actions to avoid and minimize disturbance to wildlife corridors present in the REEA. Section 4.8.4 currently discusses impacts on wildlife corridors, focusing on Nelson's bighorn sheep. Discussions in Sections 4.7.4 and 4.8.4 have been revised to further address species specific impacts that could occur from blocking or interrupting wildlife corridors.



CO3-8

The Path 42 upgrade would enable greater transfers of renewable energy from the Imperial Valley north. Per the project description from the California Independent Systems Operator the first upgrade is going through WECC path upgrade process to increase capacity from 600 - 800 MW. The second upgrade will be a re-conductoring project that will increase the path rating from 800 - 1500 MW. All information that is currently available regarding transmission to the area, including Path 42, must be included in the final EIS so that the document more accurately reflects the actual future transmission capacity of the West Chocolates area.

CO3-9

Cumulative Impacts

Cumulative impacts must be analyzed at the project level for any proposed projects in a renewable energy zone. The DEIS for the proposed REEA appears to adequately identify the categories of cumulative impacts that are to be expected at the project level review. The FEIS must take into account to the extent possible the cumulative impacts from known projects, both energy and non-energy, in the surrounding area, including developments that might occur as a result of designation of the proposed Imperial East Solar Energy Zone through the Solar PEIS.

CO3-10

Mitigation

It appears the categories of potential impacts are clearly identified in the DEIS although further specificity will be required in the FEIS and at the project level. Given what is known at this juncture in time, we can say broadly that mitigation measures must include the need to avoid or minimize impacts to sensitive resources through the identification of areas that should be excluded from development, and application of best management practices.

Given that this DEIS is not addressing a specific project or projects, it is premature to assume that the mitigation measures currently proposed in the DEIS would eliminate or minimize impacts below the level of significance for individual projects. The most important provisions for mitigation are the requirements to avoid or minimize adverse impacts – which should be part of the framework that is used to identify areas in the proposed zone where development is appropriate vs. areas in the proposed zone that should be excluded from development. The identification of appropriate areas and inappropriate areas for development within the proposed zone is discussed in further detail in the “Wildlife” section of these comments. We recommend that adequate and effective impact avoidance measures be incorporated into the final plan for all sensitive biological resources, and especially for wetlands, wildlife corridors, riparian areas, ephemeral drainages and bighorn sheep foraging and watering areas, as well as essential habitats for the special status species mentioned above.

CO3-11

Coordination with Other Planning Efforts

The West Chocolate Mountains DEIS is being developed contemporaneously with two other significant renewable energy planning efforts in the California desert: the Solar Programmatic Environmental Impact Statement (PEIS) and the Desert Renewable Energy Conservation Plan (DRECP). It is imperative that the agencies involved in these efforts, including the BLM, which is taking part in all three processes, share data and coordinate efforts so that the resulting designations for development and conservation are complementary rather than conflicting and any potential opportunities for shared infrastructure are realized.

Treatment of Climate Change

The DEIS includes the following sections describing potential climate change effects:

“Consideration of the effects of future actions that might occur under the alternatives also takes into account the phenomena of GHG emissions, carbon sequestration, and climate change, generally. The tools necessary to quantify climatic impacts are presently unavailable (BLM 2008). As a consequence, impact assessment of specific effects of anthropogenic activities and specific levels of significance cannot be determined. Therefore, climate change analysis for the purpose of this document is limited to accounting for and disclosing GHG emissions (and other factors that contribute to climate change) that could result from future activities that could be taken to implement the plan amendments proposed and analyzed in this document. Qualitative and quantitative evaluations of potential factors that could result from the future actions that could be taken to implement each alternative within the West Chocolate REEA are included, where appropriate and practicable.” DEIS Page 4-15.

**CO3-8.** The FEIS has been revised to include Path 42 in the cumulative impacts analysis.

**CO3-9.** Comment noted. The EIS considers cumulative impacts in the context of what is known about past, present, and reasonably foreseeable actions that may take place within the cumulative effects study areas. Future analyses will further refine this analysis based on site-specific project proposals and contemporaneous information regarding activities.

**CO3-10.** The FEIS expands mitigation to protect sensitive resources, including buffers surrounding wetland and riparian areas and hydrologic features. In addition, the FEIS presents consideration of several percentages of renewable energy development cap for adoption with respect to the area east of the Coachella Canal, which is believed to be high quality desert tortoise habitat. These areas have been mapped in the FEIS and have reduced the acreage that is available for leasing and development. Site-specific analyses will further refine where actual development can occur, including cultural resources and other protected resources that cannot, at this time, be precisely located.

**CO3-11.** Development of the West Chocolate Mountains REEA EIS was coordinated with the Solar Programmatic EIS team (e.g., relevant resources and foreseeable project development were included in nearby Solar Renewable Energy Zone). Since the REEA was excluded from the Solar Programmatic EIS, that project did not collect data specific to the West Chocolate Mountains area.

"Some of the GHGs associated with geothermal exploration and development would be naturally sequestered, while the balance of those emissions could accumulate with GHG concentrations in the atmosphere. This, in turn, is believed to contribute to further manifestations of climate change. However, since geothermal energy is a renewable energy with low carbon output compared with nonrenewable sources that currently dominate the U.S. energy demand, the development of geothermal energy projects could result in a net decrease in GHG emissions if the energy supplied to the grid allows fossil fuel-based power production, and its related GHG emissions, to be reduced. Projects developed under Alternative 3 are expected to result in 150MW of renewable, low carbon energy coming online and potential reductions in GHGs that are lower than those that could be constructed under Alternatives 1 and 2, since potential fossil fuel power plants could be built and operated at other locations. It is expected that the approach reflected in Alternative 3 could have the greatest beneficial impact on climate change." DEIS Page 4-31.

"Long-term generation of renewable energy could have long-term air quality benefits, including potential avoidance of emissions associated with fossil-fueled energy production. Because the burning of fossil fuels is linked to both human-induced climate change and air pollution, the solar RFD scenario could contribute to reducing emissions of GHGs and criteria air pollutants." DEIS Page 4-33.

CO3-12

The DEIS' discussion of climate change focuses on the potential reduction of greenhouse gases attributable to the development of renewable energy resources. That is, it looks at the effects of the proposed action on climate change. It does not, however, analyze the impacts of climate change on species of concern in the project area or on their habitats. The latter impacts are clearly relevant. *See, e.g.,* Secretarial Order 3289, Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources (February 22, 2010). Such an analysis will allow the BLM to assess and reduce the vulnerabilities of the proposed action to climate change, integrate climate change adaptation into the proposed action and alternatives and produce accurate predictions of environmental consequences of the proposed actions and alternatives.

Executive Summary

We offer the following editorial comments on the Executive Summary:

CO3-13

With respect to the following statement on Page 12 of the Executive Summary: "The BLM also used the NEPA commenting process to satisfy the public involvement process for Section 106 of the National Historic Preservation Act (NHPA)," it is unclear to us whether this means that NHPA public involvement was satisfied through the scoping process, or will be satisfied through the ongoing process of soliciting public comment on the EIS. Please clarify.

CO3-14

We are also requesting clarification for the reference on Page 15 of the Executive Summary to "a simple ratio" [of 34, 35, or 36 depending on the energy type]. We found further explanation of this ratio on Pages 2-4 and 2-11 of the main document, and suggest that this explanatory material be added to the Executive Summary for clarification.

CO3-15

The following statement on Page 27 of the Executive Summary did not make sense: "The action alternatives in this EIS would result in changes in the scenic landscape. The area is designated, however, to allow the greatest change in the natural landscape, the cumulative impact." Please clarify.

Conclusion

Thank you for your consideration of our comments. If you have any questions about them, please do not hesitate to contact Helen O'Shea of NRDC at 415-875-6100 or [hoshea@nrdc.org](mailto:hoshea@nrdc.org).

Sincerely,

**CO3-12.** To the extent it can be, the effect of climate change on resources within the West Chocolate Mountains REEA is captured in Section 3.1.5. Impacts to species from individual future development projects will be considered during site-specific analysis and will take into account how climate change may be affecting sensitive resources and how the additional impacts caused by projects may further stress species.

**CO3-13.** Separate letters were sent to the SHPO and the tribes. The public scoping process, as well as the public comment opportunities with respect to the DEIS, and the review period associated with the FEIS all contribute to making information regarding the proposed undertaking (plan amendment) available to the public, and encouraging their participation in consultation, pursuant to 30 CFR Part 800. No individuals or groups (other than the SHPO and certain tribes) have expressed interest in becoming consulting parties pursuant to section 106 of the NHPA.

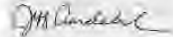
**CO3-14.** The FEIS Executive Summary has been revised to clarify/define the "simple ratio."

**CO3-15.** These sentences have been revised to be more easily understood.





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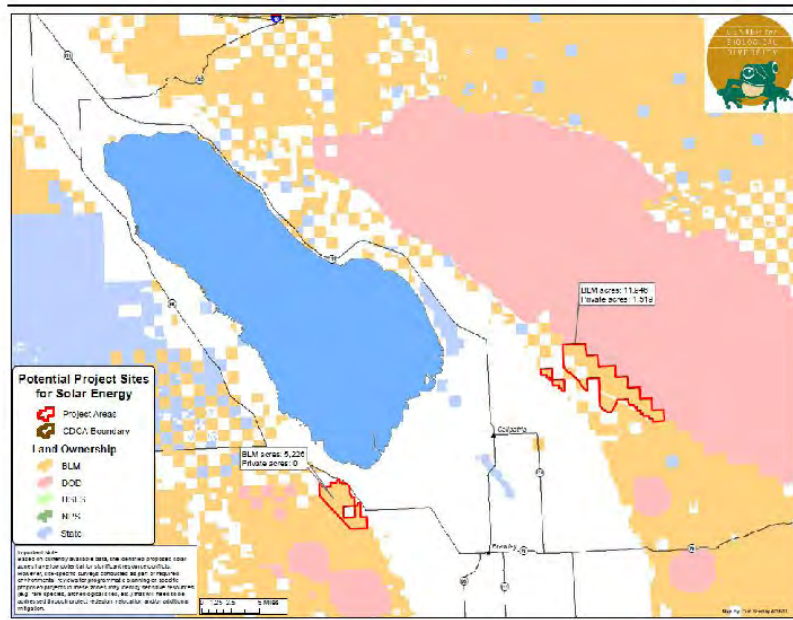


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Attachment 1 – Map of Potential West Chocolate Mountains Development Area Submitted by Environmental Stakeholders





September 29, 2011

Mr. Jim Kenna, State Director  
Bureau of Land Management  
California State Office  
2800 Cottage Way, Suite W-1623  
Sacramento, CA 95825

Re: Draft Environmental Impact Statement for the West Chocolate Mountains Renewable Energy Evaluation Area (DOI No. DES 11-21) (BLM/CA/ES-2011-13+1793)

Dear Mr. Kenna:

We are writing to make you aware of our support for BLM's decision to evaluate the West Chocolate Mountains area for its suitability for renewable energy development. By initiating this process for the West Chocolate Mountains Renewable Energy Evaluation Area (REEA), the BLM is beginning to put in place a process of identifying and analyzing additional areas that may be suitable as zones for renewable energy development. Identifying and analyzing areas in advance of applications and lease approvals will help ensure renewable energy development on the public lands is guided to areas where conflicts with and adverse impacts to other resources are minimized. In the comments that follow, we have highlighted issues which, when addressed, will help make the West Chocolate Mountains an area in which geothermal leasing and wind and solar permitting can proceed efficiently.

The Wilderness Society and NRDC, along with others have been working with the BLM and renewable energy companies to develop policies and practices that can accelerate the development of renewable energy in a responsible way. A key to success in that goal is for BLM to identify areas on public lands that have high renewable energy resources and low environmental value and guide development to such areas.

Members of the environmental community<sup>1</sup> recommended to the BLM that the agency consider lands in the West Chocolate Mountains area as a potential renewable energy zone in March 2009. These groups identified the West Chocolate Mountains areas as potentially appropriate for development for the following reasons, among others:

<sup>1</sup>NRDC, Sierra Club, Defenders of Wildlife, The Wilderness Society, Center for Biological Diversity, Audubon California, California Wilderness Coalition, Desert Protective Council, The Wildlands Conservancy, and Western Watershed Project.

- The checkerboard land ownership pattern;
- The prevalence of farming and other land disturbing activities, including a very active railroad right of way with at least two heavily used tracks;
- Lower general biological value than other pristine areas of the California Desert Conservation Area (CDCA) being considered for renewable energy development, such as the proposed Iron Mountain and Pisgah Solar Energy Zones; and
- Truncated habitat west of the aqueduct.

Members of the environmental community conducted site visits to the area as part of our preliminary evaluation in addition to drawing upon resource data available at the time. We continue to think this area has merit as a renewable energy zone.

We hope this process for the West Chocolate Mountains Renewable Energy Evaluation Area can serve as a model for the BLM as it moves from the current practices of processing applications across the landscape on a first come, first served basis to a process that better guides development to suitable areas. In the comments that follow, our organizations have highlighted issues which, when addressed, will help make the West Chocolate Mountains an appropriate renewable energy development zone.

#### Recommendations

**Additional Analyses/consultation:** The document makes clear that “[r]elative to other planning areas . . . the REEA has not been the subject of intensive cultural resource or biological resource surveys.” To begin to fill these gaps, we recommend the follow analyses be included in the FEIS:

- Map habitat types within the REEA for each sensitive or special status species known, likely or possibly present.
- Identify wildlife corridors – particularly those associated with the presence of perennial streams and ephemeral streams and washes—within the proposed zone and management prescriptions for them.
- Develop a predictive model for cultural resource using existing data from surrounding areas within the same physiographic and cultural areas to better extrapolate what kinds, location, and quality of historical and archeological sites will likely occur in areas. Use predictive model to conduct a sample survey.
- Acknowledge the impacts of climate change on species of concern in the project area or on their habitats.
- Improve cumulative impacts analysis from known projects, both energy and non-energy, in the surrounding area, including developments that might occur as a result of designation of the proposed Imperial East Solar Energy Zone through the Solar Energy Development Programmatic Environmental Impact Statement (Solar PEIS).

**Modification of the Preferred Alternative:** The Preferred Alternative (Alternative 6: Geothermal Development Emphasis with Moderate Solar Development and No Wind Development) would open up to 19,162 acres of BLM lands within the REEA for geothermal leasing (possibly accommodating up to three 50-megawatt (MW) geothermal power plants), approve the existing geothermal application that covers 640 acres, open 17,163 acres of BLM land within the REEA that is developable for solar energy to competitive application (possibly accommodating up to 5,540 MW of photovoltaic or other technology), and prohibit wind development. Development would not be allowed on Bureau of Reclamation and acquired BLM lands.

**CO4-1.** To supplement the text in the FEIS, figure(s) will be added to illustrate known or potential occurrences of special status species and their habitat. Section 3.8.3.2 provides a description of the preferred habitat for each special status wildlife species with potential to occur in the REEA and identifies if, and where, the species has been observed within the REEA. Text has been added to discuss the potential use of siphons as wildlife corridors across the canal, as well as other corridor possibilities, and the tendency of animals to stay near the canal during hot weather. Text has also been added regarding canal and siphon structure, washes, and microphyll woodlands that crop up in the washes and how they need to be protected as wildlife corridors and habitat. Refer to Response to Comment CO3-12 regarding climate change.

Cumulative impacts were analyzed in Section 4.20.

CO4-1



**CO4-2**

Because of water and military operations constraints, this alternative assumes no concentrating solar power projects would be permitted.

We support the selection of this alternative and propose the following modifications to reduce adverse environmental impacts and potential for future conflict:

- Modify the boundary of the proposed REEA to exclude known biological resources on the Salton Sea shoreline and to extend on the north only to Niland.
- Expand setbacks for shoreline and riparian areas from 100 feet to a minimum of 100 meters or larger if determined warranted through collaboration with the California Department of Fish and Game and U.S. Fish and Wildlife Service.
- Establish scientifically-based surface protection (exclusion) zones for buffers and corridors around wetlands and riparian areas in all drainages, including the Salton Sea estuary and shoreline.
- Adopt water use policy for this zone that is consistent with the California Energy Commission (CEC) policy but prioritizing environmental rather than economic considerations in evaluation of environmental impacts of alternative water supply sources.
- Include impact avoidance and minimization requirements for wildlife, particularly the sensitive or special-status species known to occur or having a high probability of occurring in the area.
- Maintain exclusion of BLM acquired lands from all leasing/development.
- Adopt mitigation measures that avoid or minimize impacts to sensitive resources through the identification of areas that should be excluded from development, and application of best management practices.
- Modify the boundary of the proposed REEA based on cultural resource assessment and consultation with tribes.
- Reflect that California Independent System Operator, Southern California Edison, and Imperial Irrigation District have committed to transmission upgrades that will enhance future transmission capacity of the West Chocolate Mountains Area. Specifically, the alternative should reflect the planned two-phased upgrade of Path 42: phase one will upgrade capacity of Path 42 from 600 MW to 800 MW; Phase 2 will re-conductor the line to increase capacity from 800 MW to 1500 MW.
- Incorporate stipulations and best management practices from the Solar PEIS into the Final West Chocolate Mountains REEA decision.

We appreciate the opportunity to work with BLM—and representatives of the renewable energy industry and other stakeholders—in finding solutions to the challenges of siting needed renewable energy in the California Desert. We believe the West Chocolate Mountains REEA, with some refinement, can be one of those solutions.

Sincerely,



Pamela Pride Eaton  
Deputy Vice President, Public Lands  
The Wilderness Society



Helen O'Shea  
Deputy Director - Western Renewable Energy Project  
Natural Resources Defense Council (NRDC)

CC: wem\_comments@blm.gov

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**CO4-2.** The following addresses this comment by bullet point:

- The FEIS has maintained the boundary of the REEA, but has added set-backs from water features to protect hydrologic features such as the Salton Sea.
- The FEIS has added a stipulation that sets a 300-foot buffer around water features and riparian areas.
- The FEIS has added a requirement that all proposals include a water supply assessment that would be used to consider the environmental and economic effects of proposed projects.
- Stipulations have been added to protect wildlife species, especially with respect to threatened and endangered species known to occur within the REEA. The FEIS has placed special importance on the area east of the Coachella Canal per information provided by the USFWS regarding desert tortoise.
- Lands acquired by the BLM under donation agreements for mitigation/compensation purposes and with LWCF funds should be considered, through a separate planning process, for management as avoidance areas for land use authorizations that could result in surface disturbing activities. See CA IM-2009-020.
- The FEIS has refined which areas would be open to leasing and solar/wind energy rights-of-way based on the added stipulations and mitigation measures.
- BLM will enter into additional government-to-government consultation with tribes during consideration of site-specific proposals. The existing REEA boundary is sufficient to maintain protections to cultural resources pending these specific analyses.
- The FEIS has added information regarding transmission line upgrades in the area.
- The FEIS has included the special stipulations from the Draft Solar Programmatic EIS, which, if adopted

*Continued from previous page.*

during this planning initiative, would be incorporated in the West Chocolate Mountains REEA Record of Decision.

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**FACSIMILE COVER SHEET**

Recipient: California Desert District

Recipient's fax number: 951-697-5299

Date: September 28, 2011

Total Pages (including cover sheet): 12

Sender: Valerie Mosqueda

Sender's fax number: ☒ 619-515-6410 ☐ 909-949-7121

Message: Please see attached.

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Original Document to Follow? ☐ Yes ☐ No

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ALC File(s) 1190.19

26 September 2011

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Re: Comments on West Chocolate Mountains Renewable Energy Area

These comments are submitted on behalf of CALifornians for Renewable Energy ("CARE") and La Cuna de Aztlan Sacred Sites Protection Circle Advisory Committee ("La Cuna") regarding the West Chocolate Mountains Renewable Energy Evaluation Area. The comments supplement any other comments that may have been submitted by my clients. In addition, CARE and La Cuna agrees with many of the other comments submitted during the scoping process, such as the comments of the Quechan Tribe, Environmental Protection Agency, Center for Biological Diversity, Defenders of Wildlife, Desert Protective Council, and The Wildlands Conservancy.

While the development of renewable energy is critical to our country's energy dependence and efforts to reduce air pollutants including greenhouse gases, renewable energy projects, like any other project, should be done in a way that minimizes the impacts to the environment and cultural resources. The following comments are submitted with the goal of promoting the balance between developing renewable energy and the protection of environmental and cultural resources.

A. The Development of the West Chocolate Mountains Renewable Energy Evaluation Area Should Coordinate with Other Energy Plans

CARE and La Cuna commend BLM for taking a step in the right direction and looking at a broader planning area than simply waiting for project-specific applications to come forward. This approach has the potential to reduce the consequences of the piecemeal approach that BLM has been taking with respect to major, utility-scale solar energy projects within the CDCA. However, the focus is still too narrow given the actions that BLM, the Department of Interior, and the Department of Energy have taken in recent years and lacks sufficient analysis to be meaningful.

On page 1-22, the DEIS acknowledges that BLM and the DOE are developing a PEIS regarding the impacts associated with solar energy development on BLM-managed public land in six western states, including California. The DEIS also acknowledges that the West Chocolate

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Mountain Renewable Energy Evaluation Area is not within the solar zones being addressed. The purpose of the six-state solar program is to identify priority areas within federal lands to open to solar energy development. Ex. P2. BLM has an obligation to balance uses within its jurisdiction. The proposed project conflicts with the Six-State solar plan because it would open up even more federal land to solar energy development than is contemplated in that effort. In any event, this narrower review should either come after the six-state FEIS process is complete to gain a full understanding of the impacts to the region or a programmatic EIS should be done for this project that looks at the full extent of the impacts in the region.

CO5-1

On page 1-22, the DEIS also acknowledges that there is an Energy Development Program to administer the development of wind energy resources on BLM-administered public lands in 11 western states, including California. Similarly, the full programmatic effects of developing wind energy resources on BLM-administered public lands either as part of the 11-state plan or in conjunction with this project.

CO5-2

**B. The Purpose and Need Statements Are Too Narrowly Construed**

An agency "cannot define its objectives in unreasonably narrow terms." *City of Carmel-by-the-Sea v. U.S. Dept. of Transportation*, 123 F.3d 1142 (9th Cir. 1997). The statement of purpose and alternatives are closely linked since "the stated goal of a project necessarily dictates the range of 'reasonable' alternatives." *Id.* The focus of the program is on the siting of renewable energy projects on public lands within the West Chocolate Renewable Energy Evaluation Area. The purpose is too geographically narrow; other locations may be better suited for renewable energy development. If the focus is going to be solely on the evaluation area, the purpose should be an inquiry into the best use of the land, and not focused exclusively on energy-generation development.

CO5-3

During the scoping process, the Quechan tribe posed the question of why the agency is continuing to approve renewable energy projects when more than enough applications have been received already. The suggested response that it would be discriminatory to exclude people from the application process misses the point. Through this action, BLM is seeking to amend the CDCA to allow for renewable energy projects. However, BLM has already approved a number of renewable energy projects within the CDCA and is moving forward with others. Anyone can file an application for a project, but BLM should consider designating this area for a less intensive purpose because so much of the CDCA has already been designated for renewable energy projects.

CO5-4

**C. The EIS Fails to Look at a Reasonable Range of Alternatives**

NEPA requires that an EIS contain a discussion of the "alternatives to the proposed action." 42 U.S.C. §§ 4332(2)(C)(iii) & (E). The discussion of alternatives is at "the heart" of the NEPA process and is intended to provide a "clear basis for choice among options by the decisionmaker and the public." 40 C.F.R. § 1502.14. An agency must look at all reasonable alternatives. *Native Ecosystems Council v. U.S. Forest Serv.*, 428 F.3d 1233 (9th Cir. 2005).

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**CO5-1.** Comment noted. This FEIS analyzed geothermal, solar, and wind energy development. There is a geothermal resource potential unique to this planning area that distinguishes this planning area and process from the Solar Programmatic EIS. The Solar Programmatic EIS only looks at solar energy development, and the other programmatic documents prepared by BLM only look at those unique resources. However, to the extent possible and appropriate, the cumulative impacts analyses for each of the planning initiatives includes consideration of these other planning initiatives.

**CO5-2.** Comment noted.

**CO5-3.** There is no requirement that BLM consider other locations in a planning document. Under BLM's planning process, the agency can consider how to manage discrete areas under multiple use and sustained yield principles. At the project level, BLM may require proponents to disclose which, if any, other lands were considered for a solar or wind ROW application. This plan will identify areas specific to this planning area that are suitable for possible ROW applications and geothermal leasing, in light of resource management considerations relevant to this planning area.

**CO5-4.** The current CDCA Plan makes land in the West Chocolate Mountains REEA provisionally available for geothermal leasing and for authorization of solar and wind projects, and the BLM must be fair in appropriately considering all new applications it receives for such development. Further, the BLM must continue to consider new renewable energy development applications in the CDCA in order to reach the target goals of the Energy Policy Act of 2005, which calls for up to 10,000 MW of renewable energy to be sited on public lands. Secretarial Order 3285A1 has also made the development of

*Continued from previous page.*

environmentally responsible renewable energy a priority for the DOI. For these reasons, the BLM is proposing this CDCA Plan Amendment to streamline the appropriate siting of renewable energy projects on public lands while ensuring consistent application of measures to mitigate the adverse impacts of such development.

Even with approval of the proposed action, individual renewable energy development projects proposed in the West Chocolate Mountains REEA will undergo project-specific environmental review prior to a decision to allow or reject the applications.

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Other Uses

CO5-5

None of the Alternatives looks at other uses for the site. Instead, there is either a no development alternative or various mixes of energy-generation development in the area.

Renewable Distributed Generation

CO5-6

Although a DG alternative may be outside BLM's jurisdiction, the alternatives analysis is not limited to an agency's jurisdiction. See 40 C.F.R. § 1502.14(c). Distributed rooftop photovoltaics ("PV") has a much less significant environmental impact than utility-scale concentrated solar. As recognized by the National Renewable Energy Lab, distributed PV has benefits such as low land use and no transmission. Ex. A1. The National Renewable Energy Lab has further recognized that DG sources such as rooftop PV and small wind turbines have substantial potential to provide electricity with little impact on land, air pollution, or CO<sub>2</sub> emissions. *Id.*

On page 193 of the California Energy Commission Integrated Energy Policy Report (December 2009), it states that a 2007 estimate from the Energy Commission suggests that there is roof space for over 60,000 MW of PV capacity. Ex. A2. See also Exs. A3 & A4. In other words, California alone has the capacity to meet the goals of providing well over 10,000 MW of electricity through distributed generation.

Section 5(a)(8) of Secretarial Order 3285A1 calls upon the Task Force on Energy and Climate Change to work with individual states, tribes, local governments, and other interested stakeholders to identify appropriate areas for generation and necessary transmission. California has taken great strides in promoting renewable DG with Governor Schwarzenegger's Million Solar Roofs program and the legislation that followed. Exs. A5-A17. California has also gone a long way in not only implementing legislation, but actually getting a smart-grid system into operation. Exs. A18-25. Altogether, a renewable DG alternative would encourage cooperation between states and the federal government to implement a comprehensive renewable-energy strategy.

Furthermore, the federal government has undergone a number of projects to promote distributed PV, demonstrating that a DG alternative is a reasonable alternative. For example, photovoltaics have been installed on rooftops of federal correctional facilities, military bases, and postal service buildings. Exs. A37-A44.

Altogether, an analysis of a DG alternative or an alternative that includes at least some DG component would allow for a meaningful review of the appropriate balance to strike between environmental impacts caused by land-intensive utility-scale generation and the electricity-generation capacity. Without an analysis of this alternative, the decision-makers cannot make an informed decision about what impacts are an acceptable cost for the benefit attained.

Conservation and Demand-Side Management

CO5-7

the EIS should have also considered conservation and demand-side management as an alternative. Conservation, demand response and other demand-side measures can reduce congestion on the grid. Conservation and other demand-side alternatives are needed to provide the basis for

**CO5-5.** The purpose and need for this particular, targeted CDCA plan amendment is to consider the suitability of lands within the REEA for solar and wind ROWs and geothermal leasing and development. The purpose and need is described in Sections 1.3 and 1.4 of the FEIS and has been developed in accordance with the BLM's Land Use Handbook (H-1601-1). Other uses of the land, as identified in the CDCA Plan of 1980, as amended, remain in place as appropriate.

**CO5-6.** Alternatives incorporating distributed generation with utility-scale generation, or looking exclusively at distributed generation, do not respond to the BLM's purpose and need for the proposed planning action considered in this EIS. The applicable federal orders and mandates providing the drivers for specific actions being evaluated in this EIS compel the BLM to evaluate utility-scale solar energy development. As discussed in Section 1.7.2.7, the Energy Policy Act of 2005 (Public Law [P.L.] 109-58) requires the Secretary of the Interior to seek to approve non-hydropower renewable energy projects on public lands with a generation capacity of at least 10,000 MW of electricity by 2015; this level of renewable energy generation cannot be achieved through distributed generation systems. In addition, Order 3285A1, issued by the Secretary of the Interior, requires the BLM and other Interior agencies to undertake multiple actions to facilitate large-scale solar energy production. Accordingly, the BLM's purpose and need for the proposed planning action considered in this EIS is focused on the appropriate siting and management of utility-scale solar energy development on public lands (see Sections 1.3 and 1.4). Furthermore, the agency has no authority or influence over the installation of distributed generation systems, other than on its own facilities, which the agency is evaluating at individual sites through other initiatives.



CO5-7. Refer to Response to Comment CO5-6.

CO5-8. Refer to Response to Comment CO5-6.

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informed decision-making about the environmental impacts of increased transmission. Therefore, this alternative should have been considered in the EIS.

Again, although a demand-side management alternative may be outside BLM's jurisdiction, the alternatives analysis is not limited to an agency's jurisdiction. See 40 C.F.R. § 1502.14(c). The benefits of energy efficiency and demand response have landed these issues at the top of the California loading order. Ex. A30. There has been a significant amount of new research emerging on the demand side of energy management and a push both at the state and federal level for improving demand. See Exs. A31-34.

Other Federal, State, or Private Land

The EIS focuses too narrowly on renewable energy within the evaluation area and should consider renewable energy more broadly either within BLM's jurisdiction or on other land. As shown in the preceding section, there are a number of examples of siting renewable-energy developments on federal, state, or private land. Exs. A37-A44. Looking at such an alternative is reasonable here.

CO5-8

**D. The EIS Fails to Adequately Analyze Direct and Indirect Impacts**

NEPA requires agencies to take a "hard look" at the effects of proposed actions; a cursory review of environmental impacts will not stand. *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146 (9th Cir. 1998). NEPA requires an agency to do the necessary work to obtain sufficient information. *National Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722 (9th Cir. 2001). Even for a programmatic environmental document, BLM and DOE have failed to take a hard look at a number of impacts.

In addition, the EIS is required to look at cumulative impacts. A cumulative impact is "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. . . ." 40 C.F.R. § 1508.07. NEPA requires that the cumulative impacts analysis provide "some quantified or detailed information," because "[w]ithout such information, neither courts nor the public . . . can be assured that the [agency] provided the hard look that it is required to provide." *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372 (9th Cir. 1998).

California Desert Conservation Area

The project involves an amendment to the California Desert Conservation Area ("CDCA"). As part of the Federal Land Policy and Management Act, Congress designated approximately 25 million acres of southern California as the CDCA. 43 U.S.C. § 1781. Congress found that "the California desert contains historical, scenic, archeological, environmental, biological, cultural, scientific, educational, recreational, and economic resources that are uniquely located adjacent to an area of large population." 43 U.S.C. § 1781(a)(1). Congress has recognized that "the California desert environment is a total ecosystem that is extremely fragile, easily scarred, and slowly healed." 43 U.S.C. § 1781(a)(2). As a special area, Congress required that a "comprehensive, long-range plan

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for the management, use, development and protection of the public lands within the California Desert Conservation Area" be prepared. *Id.* at § 1781(d). For the CDCA and other public lands, Congress mandated that the BLM "shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands." 43 U.S.C § 1732(b).

The EIS does not disclose the cumulative impacts within the CDCA plan. Particularly with a plan like the CDCA, it is important to see how resources are being balanced within the entirety of the plan.

Wildlife: Desert Tortoise

CO5-9

The EIS fails to take a hard look at the potential for impacts to the desert tortoise. While the EIS acknowledges that there will be impacts to the desert tortoise, there is no comprehensive analysis of the proposed action's impact on the desert tortoise. The desert tortoise is susceptible to impacts due to fragmentation of habitat. Ex. B1. Furthermore, relocation can have serious consequences that need to be considered when examining programs and policies for large projects such as the ones proposed here. Exs. B2-B6. Additionally, the construction of utility-scale solar facilities is harmful to the desert tortoise.

CO5-10

The EIS fails to take a hard look at the cumulative impacts to the desert tortoise and other wildlife. The tortoises will not abide by the arbitrary geographic boundary assigned for cumulative impacts. As these large utility-scale energy projects pop up throughout the region, there are less and less places for the tortoises to live and the habitat becomes heavily fragmented. A more holistic view of the habitat and cumulative impacts of these projects needs to be taken.

Wildlife: Special Status Bat Species

CO5-11

The EIS does not take into account the impacts that wind, solar and geothermal development have on the diet of special status bat species. For example, solar panels and wind turbines can have a deleterious impact on insects, which is a food source for bats. Exs. B7-B9.

Native American Resources

CO5-12

The EIS defers analysis of Native American concerns until project-specific consultation is conducted. However, the EIS provides an opportunity to look at appropriate siting of solar energy facilities in relation to cultural sites. The impacts to wildlife should be considered in the context of Native American importance. For example, the desert tortoise holds special significance to Native Americans. Ex. C11. The cumulative impact analysis discounts impacts to cultural resources and Native American Tribes. For many Native American sacred sites, the importance derives not only from the sites themselves but also from how they relate to one another. Ex. C12.

CO5-13

The EIS says that "BLM coordinates with all tribal governments, associated Native American communities and Native American organizations, and tribal individuals whose interests might be directly and substantially affected by activities on public lands." EIS, p. 5-8. However, there is no evidence that adequate consultation has in fact taken place for the proposed action. See Exs. Cnslt 1-4.

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**CO5-9.** Section 4.8 and Table 4-1 present a generalized impact assessment on desert tortoise within the REEA as a result of loss of vegetation that provides cover and forage, and increased collisions and raven predation from development of renewable energy projects. Discussion within Section 4.8 has been expanded to provide further, specific analysis on direct and indirect impacts on the desert tortoise. This analysis will include known deleterious effects from handling tortoise, fugitive dust generation, invasive plant impacts on habitat quality, fragmentation of habitat, and impacts from relocation and/or translocation of desert tortoise.

As discussed under the Specific Species: Desert Tortoise portion of the Biological Resource section of Appendix I-A2 the document incorporates numerous minimization and mitigation measures for desert tortoise within the REEA. One of these specifies that CDFG and USFWS must evaluate relocation/translocation efforts on an action-by-action basis in the context of cumulative effects because of the potential magnitude of the impacts to desert tortoise from proposed renewable energy projects. Appendix I-A2 includes additional measures to address any potentially adverse effects from the relocation of desert tortoise, including: (1) design features to reduce the need to relocate the animal; (2) requirements that only an agency-approved biologist may determine when it is appropriate to remove and relocate the animal to a safe location and perform the relocation; and (3) development and implementation of an agency-approved Desert Tortoise Translocation Plan for the action.

**CO5-10.** The cumulative environmental analysis for wildlife resources reflects natural watershed boundaries, mountain ranges, and wildlife corridors, and includes a 40-mile buffer surrounding the exterior boundaries of the REEA. This cumulative analysis area is appropriate to

*Continued from previous page.*

assess resident desert tortoise populations that may travel within and around the REEA..

Sections 4.19.3.7 and 4.19.3.8 currently disclose that, although the BMPs employed are designed to reduce impacts, any development that might occur under each alternative could have a considerable impact on a variety of common and special status wildlife species, including desert tortoise, through habitat loss and/or habitat fragmentation

**CO5-11.** Section 4.8.4 has been revised to address the potential direct impacts from solar and wind development could have on the prey base for special status bat species potentially present in the REEA. The development of geothermal facilities does not create a known significant impact on the food source of special status bat species in the REEA.

**CO5-12.** Native American consultation was initiated as part of the planning process, and is ongoing. The Native American consultation is described in Section 5.2.2. This section indicates the tribes consulted, the dates on which various letters were sent, and the results of those letters. Government-to-government consultation is ongoing for this project, and this ongoing process provides the opportunity for tribes and Native Americans to participate in the process and discuss the issues of sensitive siting with regard to cultural resources, as well as the opportunity for tribes and Native Americans to express concerns about impacts, including cumulative impacts, to biological resources that are important to them.

**CO5-13.** Refer to Response to Comment CO5-12.

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Water Supply

Water supply is an important consideration in utility-scale solar development. In fact, Congress required a study on methods to reduce the amount of water consumed by concentrating solar power systems. Ex. W1. Furthermore, the Colorado River has been under an enormous amount of pressure and is anticipated to be under even more pressure in the future due to climate-change impacts. Exs. W2-W11.

E. The EIS Fails to Identify Appropriate Mitigation

"Implicit in NEPA's demand that an agency prepare a detailed statement on 'any adverse environmental effects which cannot be avoided should the proposal be implemented,' 42 U.S.C. § 4332(C)(ii), is an understanding that an EIS will discuss the extent to which adverse effects can be avoided." *Robertson v. Methow Valley Citizens*, 490 U.S. 332 (1989). NEPA requires that an EIS discuss mitigation measures with "sufficient detail to ensure that environmental consequences have been fairly evaluated." *Id.* A mitigation discussion must have at least some evaluation of the effectiveness of the mitigation. *South Fork Band Council of Western Shoshone v. Department of the Interior*, 588 F.3d 718 (9th Cir. 2009).

One of BLM's stated purposes for this project is the development of mitigation. However, the EIS largely defers any consideration of mitigation to when a specific project is being considered. However, some mitigation is appropriate at this stage. At the very least, you should consider the mitigation measures currently proposed for the six-state solar program. Ex. M1.

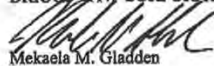
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Because this letter is being submitted electronically, my office has mailed you a DVD containing copies of the exhibits cited above; if you do not receive the DVD within a few days, please do not hesitate to let me know. An index of the forthcoming exhibits accompanies this letter.

Thank you for your consideration of my clients' comments.

Sincerely,

BRIGGS LAW CORPORATION

  
Mekaela M. Gladden

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**CO5-14.** Because this is a planning initiative, impacts and mitigation measures are presented at a programmatic level. See Appendix I-A for a discussion BMPs that would reduce impacts at the project level. Whether any of these measures are implemented will depend on site conditions (i.e., presence of a particular resource or impact), and will be analyzed as to their effects during project-specific environmental review. As noted in Appendix I-B, BMPs presented in the Final Solar Programmatic EIS are being included in this planning initiative.

**CO5-15.** Refer to Response to Comment CO5-14.

CO5-14

CO5-15

**INDEX OF EXHIBITS**  
 West Chocolate Mountains

<b>Exhibit</b>	<b>Description</b>	<b>DATE</b>
<b>Alternatives</b>		
A1	Solar Power and the Electric Grid	Not Identified
A2	California Energy Commission, 2009 Integrated Energy Policy Report, Final Commission Report	December 2009
A3	California Rooftop Photovoltaic Resource Assessment and Growth Potential by County	September 2007
A4	Los Angeles Rooftop Solar Atlas	2011
A5	Cal. Pub. Res. Code § 25740	Not Identified
A6	Cal. Pub. Res. Code § 25780-25784	Not Identified
A7	Cal. Pub. Util. Code § 399.15	Not Identified
A8	Cal. Pub. Util. Code § 2581	Not Identified
A9	Cal. Pub. Util. Code § 2827-2830	Not Identified
A10	Cal. Rev. and Tax Code § 73	Not Identified
A11	Senate Bill No. 1: An Act to Add Sections 25405.5 and 25405.6 to, and to Add Chapter 8.8 to Division 15 of, the Public Resources Code, and to Amend Section 2827 of, and to Add Sections 387.5 and 2851 to, the Public Utilities Code, Relating to Solar Electricity	Not Identified
A12	Executive Order S-14-08	Not Identified
A13	Executive Order S-21-09	Not Identified
A14	Governor Signs Legislation to Complete Million Solar Roofs Plan	August 21, 2006
A15	About the California Solar Initiative	Not Identified
A16	Electricity and Natural Gas Regulation in California	Not Identified
A17	California Solar Initiative Success and Request for Comment on Budget Issues	July 2010
A18	San Diego Smart Grid Study Final Report	October 2006



A19	About Edison SmartConnect	Not Identified
A20	Edison SmartConnect Installation Schedule	Not Identified
A21	Smart Meter Installation Schedule	Not Identified
A22	Full Installation Schedule	Not Identified
A23	Senate Bill 17: An Act to Add Chapter 4 to Division 4.1 of the Public Utilities Code, Relating to Electricity	Not Identified
A24	"CPUC Reports on Success of California's Solar Program"	June 30, 2009
A25	"Freeing the Grid, Best Practices in State Net Metering Policies and Interconnection Procedures"	December 2010
A26	Energy Efficiency in the Power Grid	Not Identified
A27	"Optimization of Distributed Generation Capacity for Line Loss Reduction and Voltage Profile Improvement Using PSO"	2008
A28	"Quantitative Assessment of Distributed Generation Benefits to Improve Power System Indices"	Not Identified
A29	FERC: "The Potential Benefits of Distributed Generation and Rate-Related Issues that May Impede Their Expansion"	February 2007
A30	"Implementing California's Loading Order for Electricity Resources"	July 2005
A31	"Impact Assessment of Plug-In Hybrid Vehicles on Electric Utilities and U.S. Power Grids; Part 1: Technical Analysis"	Not Identified
A32	FERC's Solicitation of Comments on the Frequency Response Report: An Opportunity for Energy Storage?	February 7, 2011
A33	Energy Law Journal, "Recognizing the Importance of Demand Response: The Second Half of the Wholesale Market Equation"	2007
A34	Energy Law Journal, "Recognizing the Importance of Demand Response: The Second Half of the Wholesale Market Equation"	2007

A35	Solar Energy: Better Than Fossil Fuels, Worse than Anything Else	April 11, 2011
A36	Distributed Energy Resources Guide: Wind Turbines-Strengths and Weaknesses	January 18, 2002
A37	Federal Energy Management Program, Federal Correctional Institution-Phoenix, Arizona	April 8, 2011
A38	"Navy Region Southwest Saves Energy, Money with Solar Project"	April 30, 2009
A39	Superior Solar Systems, LLC Completes 79-Kilowatt Solar Electric Installation for NASA	April 8, 2011
A40	VanGuard Energy Partners LLC-Fairton Federal Correctional Institution	April 8, 2011
A41	United States Navy, Pearl Harbor-Case Study	
A42	"U.S. Navy's Solar Power Push"	November 22, 2010
A43	"Solar Panels for Federal Building Awaiting Final Ok"	March 18, 2011
A44	The United States Postal Service Generates Clean Energy with 4 SunPower Systems-Case Study	
A45	Solar Millennium AG Adopts Strategic Realignment	August 8, 2011
A46	Solar Panels-Solar Thermal vs. Photovoltaic	August 23, 2011
<b>Biological Resources</b>		
B1	Commutative Impacts on Large-Scale Renewable Energy Development in the West Mojave	May 8, 2009
B2	"SoCal Solar Project Could Displace 140 Tortoises"	March 31, 2011
B3	"Concerns as Solar Installations Join a Desert Ecosystem"	November 16, 2010
B4	"Army Suspends Fort Irwin Tortoise Relocation Plans After Deaths of 90 Animals"	October 9, 2008
B5	"Fast-Track Solar Project Could Speed Mojave Desert's Demise"	November 12, 2009
B6	"Desert: BLM Gets an Earful About the Ivanpah Valley"	April 1, 2011

B7	Reducing the Maladaptive Attractiveness of Solar Panels to Polarotactic Insects	2010
B8	"Wind Turbines Lure in Animals"	October 15, 2010
B9	"Bats, Bugs, Wind Turbines, and Unintended Consequences"	July 18, 2011
<b>Cultural Impact s</b>		
CI1	The Desert Tortoise and Early Peoples of the Western Desert	March 1996
CI2	The Ivanpah Generating Station Project Ethnographic Resources	September 1981
<b>Consultation</b>		
Cnslt 1	Native American Coordination and Consultation (8160)	January 26, 1990
Cnslt 2	General Procedural Guidance for Native American Consultation (H-8160-1)	November 3, 1994
Cnslt 3	Amendment No.1 to Memorandum of Understanding Between United States Department of the Interior Bureau of Land Management and the Southern Low Desert Resource Conservation and Development Council	February/March 2008
Cnslt 4	Order Granting Preliminary Injunction (Quechan Tribe of the Fort Yuma Indian Reservation v. US Dept. of the Interior; Case no. 10cv2241-LAB)	December 15, 2010
<b>Mitigation</b>		
M1	Impacts of Solar Energy Development and Potential Mitigation Measures	December 2010
<b>Programmatic EIS</b>		
P1	BLM National Environmental Policy Act Handbook H-1790-1	January 2008
P2	Executive Summary	December 2010
P3	Comment Period for Draft Solar PEIS	April 13, 2011
P4	Record of Decision: Implementation of a Wind Energy Development Program and Associated Land Use Plan Amendments	December 2005

<b>Purpose and Need</b>		
PN1	Executive Order 13212	May 22, 2001
PN2	Energy Policy Act of 2005	2005
PN3	Department of the Interior Secretarial Order 3285A1	February 22, 2010
<b>Water Supply</b>		
W1	"Park Service Warns of Solar Projects' Impacts to Mojave Desert"	April 23, 2009
W2	"Western Reservoirs Could be Dry by 2050"	July 20, 2009
W3	Future of Western Water Supply Threatened by Climate Change	Not Identified
W4	The Colorado River's Uncertain Future	Not Identified
W5	Managing the Uncertainties on the Colorado River System	Not Identified
W6	Scripps News: Climate Change Means Shortfalls in Colorado River	Not Identified
W7	Sustainable Water Deliveries from the Colorado River in a Changing Climate	Not Identified
W8	Impact of Climate Change and Land Use in the Southwestern United States: Land Subsidence from Ground-Water Pumping	January 6, 2004
W9	Chapter 5: The Impact of Aquifer Intensive Use on Groundwater Quality	February 10, 2002
W10	DPLU Policy Regarding CEQA Cumulative Impact Analyses for Borrego Valley Groundwater Use	January 17, 2007
W11	USGS: Quality of Ground Water	Not Identified





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**RE: Comments on the Draft Environmental Impact Statement and California Desert  
Conservation Area Plan Amendment for the West Chocolate Mountains Renewable Energy  
Evaluation Area DOI No. DES 11-21, June 2011.**

Dear Mr. Godfrey:

These comments are submitted on behalf of the Center for Biological Diversity's 320,000 staff, members and on-line activists in California and throughout the western states, regarding the Draft Environmental Impact Statement and California Desert Conservation Area Plan Amendment for the West Chocolate Mountains Renewable Energy Evaluation Area, DOI No. DES 11-21, June 2011, issued by the Bureau of Land Management ("BLM").

The development of renewable energy is a critical component of efforts to reduce greenhouse gas emissions, avoid the worst consequences of global warming, and to assist California in meeting emission reductions. The Center for Biological Diversity (the "Center") strongly supports the development of renewable energy production, and the generation of electricity from renewable energy. However, like any project, renewable energy projects, including zones, should be thoughtfully planned to minimize impacts to the environment. In particular, renewable energy areas or zones should avoid impacts to sensitive species and habitats, and where possible should be sited in proximity to the areas of electricity end-use in order to reduce the need for extensive new transmission corridors and lines and the efficiency loss associated with extended energy transmission. Only by maintaining the highest environmental standards with regard to local impacts, and effects on species and habitat, can renewable energy production be truly sustainable.

The DEIS identifies the preferred alternative to be Alternative 6, which is geothermal development emphasis with moderate solar development and no wind development. Under this alternative the West Chocolate Mountains Renewable Energy Evaluation Area (WCMREEA)

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includes approximately 59,095 acres of public and private lands in the Colorado Desert that provide habitat for many species including the federally threatened desert tortoise. Within the WCMREEA, there are 31,551 acres of private lands, 3,200 acres of land managed by the California State Lands Commission (CSLC), 1,782 acres of split estate land (private surface/federal minerals), 2,862 acres of land acquired from the Catellus Corporation by the Wildlands Conservancy using Lands and Water Conservation Fund (LWCF) money and donated to the BLM (the acquired lands are not available for geothermal leasing), and 1,800 acres of land (federal surface/federal minerals) withdrawn for use by the Bureau of Reclamation (BOR) (also not open for surface occupancy or geothermal leasing). BLM land within the WCMREEA considered for renewable energy projects consists of 20,762 acres of land that contain federal surface and 19,162 acres of land with federal mineral estate, 1,782 acres of surface land in the split estate are included in the 31,551 acres of private land mentioned above. The preferred alternative will allow geothermal and solar leasing and development, except on the BOR withdrawn land and the lands acquired by the Wildlands Conservancy and donated to BLM. Additionally, constraints may be found during project specific planning or following further future studies as, whereby portions of the WCMREEA may be determined to be unsuitable for geothermal development.

The DEIS for the proposed WCMREEA and the proposed CDCA plan amendment falls short in providing adequate identification and analysis of potentially significant impacts to the environment from the proposed zoning on public land resources including the desert tortoise, golden eagles, rare plants, animals and vegetation communities including Colorado desert microphyll woodlands, and other biological resources. The DEIS also fails to adequately address the significant cumulative impacts of the project.

Of particular concern is the DEIS's failure to include adequate information regarding the impacts to resources and the failure to fully examine the impact of the proposed plan amendment to the California Desert Conservation Act Plan ("CDCA Plan") along with other proposed plan amendments from other recently permitted and additional proposed projects and plan amendments. While we generally support the designation of renewable energy zones instead of the current piecemeal BLM process which has already lead to approval of industrial sites sprawling across the California Desert in habitat that should be protected to achieve the goals of the bioregional plan as a whole, much of the proposed WCMREEA still fails to meet some of the most basic criteria for sustainable renewable energy development – primarily because it 1) is proposed in habitat for a suite of rare species, 2) is not located near the source of energy consumption and 3) does not address necessary transmission upgrades as part of the proposal. Alternative siting and alternative technologies (including distributed generation) should have been also been fully considered as alternatives in the DEIS, because they could significantly reduce the impacts to many species, soils, and water resources in the Colorado Desert. The area of the proposed WCMREEA is not currently part of the evaluation being undertaken by the BLM for the solar PEIS for solar energy zones, and it is unclear how this process might be integrated with the overall planning process for renewable energy.

In the sections that follow, the Center provides detailed comments on the ways in which the DEIS fails to adequately identify and analyze many of the impacts that could result from the

**CO6-1.** The FEIS has been revised to add language that clarifies how this document will amend the CDCA Plan.

proposed adoption of the renewable energy area or zone, including but not limited to: impacts to biological resources, impacts to water resources, impacts to soils, and cumulative impacts.

**I. The BLM's Analysis of the Proposed Plan Amendment and Proposed Project Fail to Comply with FLPMA.**

As part of FLPMA, Congress designated 25 million acres of southern California as the California Desert Conservation Area ("CDCA"), 43 U.S.C. § 1781(c). Congress declared in FLPMA that the CDCA is a rich and unique environment teeming with "historical, scenic, archaeological, environmental, biological, cultural, scientific, educational, recreational, and economic resources." 43 U.S.C. § 1781(a)(2). Congress found that this desert and its resources are "extremely fragile, easily scarred, and slowly healed." *Id.* For the CDCA and other public lands, Congress mandated that the BLM "shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands." 43 U.S.C § 1732(b).

**CO6-1**

The DEIS does not provide the specific language of the proposed amendment to the CDCA plan. While the DEIS (at ES-9) describes the preferred alternative, the only reference to the plan amendment is "Under this alternative, the CDCA Plan would be amended to identify sites within the West Chocolate REEA as suitable for geothermal leasing and development" and "The CDCA Plan would also be amended to identify sites within the West Chocolate REEA as suitable for solar energy development. (DEIS at ES-9). The DEIS lays out the process for a California Desert Conservation Area (CDCA) plan amendment (DEIS at 2-13), but fails to identify the specific parameters of the proposed amendment. Given the impact of the proposal on other multiple uses of these public lands at the proposed site as well as other aspects of the bioregional planning, it is clear that BLM may also need to amend other parts of the CDCA plan as well and should have looked at additional and/or different amendments as part of the alternatives analysis.

The Center supports additional protections for species and habitats on public land that could accrue for example by adoption the No Development/CDCA Plan Amendment alternative 2 which would not allow renewable energy development in the proposed evaluation area or by adoption of a development restrictions on part of this area-- in the most sensitive areas of the proposed zone..

The Center has repeatedly sought stronger protections for desert tortoise and tortoise critical habitat both in the Desert Wildlife Management Areas (DWMAs) and in other areas within the CDCA as a whole. Despite the fact that desert tortoise populations in the DWMAs continue to decline, BLM has continued to allow activities that significantly impact tortoise and critical habitat within the DWMAs and in other areas of occupied habitat outside of the DWMAs. As detailed below, the proposed project may significantly impact occupied desert tortoise habitat outside of DWMA and alternatives should have been considered to relocate all of the project elements to minimize these impacts but no such alternatives were adequately explored.

BLM has taken a step in the right direction in the proposed WCMREEA by including significant amounts of private lands within the evaluation area. Indeed the Center and sister

conservation organizations proposed a much smaller study area of BLM and private lands in the southern area of the proposed zone for solar. However, at that time, our proposal identified public and private lands prior to all of the thousands of acres of ecologically functioning habitat that have recently been permitted for project construction by BLM and other lead agencies. Several of those recently permitted projects will significantly impact habitat for the same suite of species that the WCMREEA is also proposed to impact. While we recognize that the WCMREEA includes some disturbed lands and in many areas of the zone the quality of the habitat is generally of lower value to species survival than, for instance, some of the permitted project sites, the species are now left with much less habitat, which now makes even lower quality habitat more valuable than previously identified. Because of the cumulative loss of habitat for rare species, we urge the BLM to modify the preferred alternative and pull the eastern boundary of the zone to the west side of the Coachella canal, while more strongly enforcing the boundaries of the Imperial Sand Dunes Recreation Area to prevent the on-going destruction of habitat from illegal off-road vehicle activity especially in the southern portion of the evaluation area.

**A. The DEIS Fails to Adequately Address the Plan Amendment in the Context of the CDCA Plan.**

Unfortunately, the DEIS fails to adequately consider the impacts of the proposed WCMREEA and plan amendment and reasonable alternatives in the context of FLPMA and the CDCA Plan. As stated above, the actual language of the plan amendment is not provided, therefore the actual proposal for the land use plan amendment is unclear. FLPMA requires that in developing and revising land use plans, the BLM consider many factors and “use a systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences . . . consider the relative scarcity of the values involved and the availability of alternative means (including recycling) and sites for realization of those values.” 43 U.S.C. § 1712(c). As stated clearly in the CDCA Plan:

The goal of the Plan is to provide for the use of the public lands, and resources of the California Desert Conservation Area, including economic, educational, scientific, and recreational uses, in a manner which enhances wherever possible—and which does not diminish, on balance—the environmental, cultural, and aesthetic values of the Desert and its productivity.

CDCA Plan at 5-6. The CDCA Plan also provides several overarching management principles:

**MANAGEMENT PRINCIPLES**

The management principles contained in the law (FLPMA)—*multiple use, sustained yield, and the maintenance of environmental quality*—are not simple guides. Resolution of conflicts in the California Desert Plan requires innovative management approaches for everything from wilderness and wildlife to grazing and mineral development. These approaches include:



—Seeking simplicity for management direction and public understanding, avoiding complication and confusing in detail which would make the Plan in comprehensive and unworkable.

—Development of decision-making processes using appropriate guidelines and criteria which provide for public review and understanding. These processes are designed to help in allowing for the use of desert lands and resources while preventing their undue degradation or impairment.

—Responding to national priority needs for resource use and development, both today and in the future, including such paramount priorities as energy development and transmission, without compromising the basic desert resources of soil, air, water, and vegetation, or public values such as wildlife, cultural resources, or magnificent desert scenery. This means, in the face of unknowns, erring on the side of conservation in order not to risk today what we cannot replace tomorrow.

—Recognizing that the natural patterns of the California Desert, its geological and biological systems, are the basis for planning, and that human use patterns, from freeways to fence lines, define its boundaries. Only in this way can the public resources can be understood and protected by the Plan that can be publicly comprehended, accepted, and followed.

CDCA Plan 1980 at 6 (first emphasis in original, second emphasis added).

CO6-2

The CDCA Plan anticipated that there would be multiple plan amendments over the life of the plan and provides specific requirements for analysis of Plan amendments. Those requirements include determining “if alternative locations within the CDCA are available which would meet the applicant’s needs without requiring a change in the Plan’s classification, or an amendment to any Plan element” and evaluating “the effect of the proposed amendment on BLM management’s desert-wide obligation to achieve and maintain a balance between resource use and resource protection.” CDCA Plan at 121. BLM reads this portion of the CDCA plan narrowly and attempts to divorce it from the required NEPA analysis and alternatives. Looking at the CDCA Plan requirement in context with the NEPA review it is clear that the BLM is required to analyze not only whether alternative locations are available that would not require a plan amendment, but also how the proposed amendment would affect desert-wide resource protection and whether alternative locations and alternative plan amendments would avoid or lessen those impacts—BLM fails to address the latter issue and did not look at any site alternatives in detail. The inclusion of a “no action” alternatives, a “no development” alternative, and three alternatives with varying degrees and types of development as part of the NEPA analysis failed to cure this omission.

CO6-3

The CDCA Plan includes the Energy Production and Utility Corridors Element which is focused primarily on utility corridors with brief discussion of powerplant siting. Even in 1980 the CDCA Plan contemplated that alternative energy projects would likely be developed in the future but did not expressly provide planning direction for solar energy production. Nonetheless, the overarching principles expressed in the Decision Criteria are also applicable to the proposed project here including minimizing the number of separate rights-of-way, providing alternatives for consideration during the processing of applications, and “avoid[ing] sensitive resources

**CO6-2.** The cited language refers to site-specific applications and not to decision-making at the programmatic level. Project proponents will continue to be required to show why lands within the REEA are required for their project. This is a requirement not just of the CDCA Plan, but 43 CFR 2800 regulations et seq., which demand that applicants disclose this information.

**CO6-3.** The EIS considered impacts at various geographic and temporal scales, including the direct, indirect, and cumulative effects under the alternatives. Landscape level impacts were considered in the impact assessments in each of the resource sections in Chapter 4. The wording cited does not require that BLM evaluate the entire CDCA every time it considers a proposal or a subset of the planning area, such as the REEA.

**CO6-4**

wherever possible.” CDCA Plan at 93. Nothing in the DEIS shows that BLM considered the landscape level issues and management objectives or alternatives to the proposed plan amendment in the DEIS.

In addition, BLM should consider the impacts to existing land use plans for these public lands across several scales including, for example: in the Imperial valley, in the Colorado Desert in California; and in the CDCA as a whole.

**B. Fails to Adequately Address Other Ongoing Planning Efforts**

As noted above, the DEIS fails to adequately address the proposed zone in the context of other connected projects (including multiple renewable energy projects, substations and additional transmission lines) and the ongoing PEIS planning process for solar development in six western states undertaken by BLM and DOE, where a revised draft plan is tentatively slated to be released in the fall of 2011. The maps for the Draft PEIS did not identify this area as a proposed solar energy study area<sup>1</sup>, and the DEIS does not explain how the environmental review for this proposal and separate process can or will be coordinated with the PEIS and those anticipated plan amendments.

**C. BLM Failed to Inventory the Resources of these Public Lands Before Proposing Potential Damage to those Resources**

FLPMA states that “[t]he Secretary shall prepare and maintain on a continuing basis an inventory of all public lands and their resource and other values,” and this “[t]his inventory shall be kept current so as to reflect changes in conditions and to identify new and emerging resource and other values.” 43 U.S.C. § 1711(a). FLPMA also requires that this inventory form the basis of the land use planning process. 43 U.S.C. § 1701(a)(2). See *Center for Biological Diversity v. Bureau of Land Management*, 422 F.Supp.2d 1115, 1166-67 (N.D. Cal. 2006) (discussing need for BLM to take into account known resources in making management decisions); *ONDA v. Rasmussen*, 451 F.Supp. 2d 1202, 1212-13 (D. Or. 2006) (finding that BLM did not take a hard look under NEPA by relying on outdated inventories and such reliance was inconsistent with BLM’s statutory obligations to engage in a continuing inventory under FLPMA). It is clear that BLM should not approve a management plan amendment based on outdated and inadequate inventories of affected resources on public lands.

**CO6-5**

As detailed below in the NEPA sections, BLM has failed to compile an adequate inventory of the resources of the public lands that could be affected by the proposed project before preparing the DEIS (including, e.g., desert tortoise densities, golden eagle surveys, flat-tailed horned lizard densities, rare plants, and other biological resources) which is necessary in order to adequately assess the impacts to resources of these public lands in light of the proposed plan amendment and BLM has also failed to adequately analyze impacts on known resources. The BLM can not solely rely on future project development to identify the on-site resources this

<sup>1</sup> [http://solareis.anl.gov/documents/maps/studyareas/Solar\\_Study\\_Area\\_CA\\_1.ttr](http://solareis.anl.gov/documents/maps/studyareas/Solar_Study_Area_CA_1.ttr) 7-09.pdf

**CO6-4.** The CDCA Proposed Plan Amendment/EIS discloses impacts to lands and resources and not to other land use plans. See Chapter 4 for discussions on indirect (off-site) and cumulative impacts that may occur outside of the boundaries of the REEA.

**CO6-5.** The CDCA Proposed Plan Amendment/EIS for the West Chocolate Mountains REEA is not a project but a programmatic document prepared under BLM’s planning regulations and handbook and NEPA. Specifically, (apart from the analysis supporting the leasing decision for the pending non-commercial lease application) it is a land use allocation document only, and supports a very narrow scope of decision making –whether to allow consideration of solar, wind and geothermal energy development applications in the future, in this area, or not. Because the scope of the decision is narrow, the amount of information needed to assess the impacts of this decision is appropriately narrow, as well. FLPMA leaves to the BLM’s discretion the timing and manner of inventorying the resources it manages, and NEPA requires a hard look at environmental consequences commensurate with the decision to be made. Because this is a planning initiative, the information provided, and impacts assessed is necessarily programmatic in character. Until there is more specific information regarding location and technology to be used, specific baseline conditions and potential impacts cannot be identified. As a programmatic discussion, supporting a limiting, planning-level decision, it is not useful or possible to inventory resources for this initiative at the same level as one would for a project. These studies will be required, as appropriate, at the project level.



CO6-6

information is needed at the planning level as well. In fact the DEIS is unclear if ANY surveys of the proposed project area were undertaken in order to evaluate impacts. .

Therefore, it appears that a revised DEIS or supplemental DEIS must be prepared to include several categories of new information including new survey data about the resources of the site and potential impacts of the project on resources of our public land and water, and that document must be circulated for public review and comment.

**D. The DEIS Fails to Provide Adequate Information to Ensure that the BLM will Prevent Unnecessary and Undue Degradation of Public lands**

FLPMA requires BLM to “take any action necessary to prevent unnecessary or undue degradation of the lands” and “minimize adverse impacts on the natural, environmental, scientific, cultural, and other resources and values (including fish and wildlife habitat) of the public lands involved.” 43 U.S.C. §§ 1732(b), 1732(d)(2)(a). Without adequate information and analysis of the current status of the resources of these public lands, BLM cannot fulfill its duty to prevent unnecessary or undue degradation of the public lands and resources. Thus, the failure to provide an adequate current inventory of resources and environmental review undermines BLM’s ability to protect and manage these lands in accordance with the statutory directive.

BLM has failed to properly identify and analyze impacts to the resources including the impacts from all of the project components. As detailed below, the BLM’s failure in this regard violates the most basic requirements of NEPA and in addition undermines the BLM’s ability to ensure that the proposal does not cause unnecessary and undue degradation of public lands. See *Island Mountain Protectors*, 144 IBLA 168, 202 (1998) (holding that “[t]o the extent BLM failed to meet its obligations under NEPA, it also failed to protect public lands from unnecessary or undue degradation.”); *National Wildlife Federation*, 140 IBLA 85, 101 (1997) (holding that “BLM violated FLPMA, because it failed to engage in any reasoned or informed decisionmaking process” or show that it had “balanced competing resource values”).

**II. The DEIS Fails to Comply with NEPA.**

NEPA is the “basic charter for protection of the environment.” 40 C.F.R. § 1500.1(a). In NEPA, Congress declared a national policy of “creat[ing] and maintain[ing] conditions under which man and nature can exist in productive harmony.” *Or. Natural Desert Ass’n v. Bureau of Land Mgmt.*, 531 F.3d 1114, 1120 (9th Cir. 2008) (quoting 42 U.S.C. § 4331(a)). NEPA is intended to “ensure that [federal agencies] ... will have detailed information concerning significant environmental impacts” and “guarantee[] that the relevant information will be made available to the larger [public] audience.” *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998).

Under NEPA, before a federal agency takes a “‘major [f]ederal action[] significantly affecting the quality’ of the environment,” the agency must prepare an environmental impact statement (EIS). *Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1067 (9th Cir. 2002)

**CO6-6.** No surveys were conducted as a part of this EIS. Refer to Response to Comment CO6-5. In addition, it is important to note that this amendment proposed for the RMP does not dictate site-specific actions, and therefore, the BLM is not able, nor is it required, to assess the impacts of its future possible management activities to a level more detailed than the fairly general and programmatic approach presented here. As described in Chapter 2, and throughout the document, to the extent that approval or disapproval of a particular project, or application for specific mitigation measures to a particular project is warranted, in the future, that decision would most appropriately be made on the basis of environmental analysis conducted then, when more is known about the specifics of the individual project.

The 1980 CDCA Plan was developed using knowledge at hand without expending time and funds to do detailed on the ground inventory of resources prior to issuing the Record of Decision and implementing the Plan. Implementation of the Plan included conducting field studies and maintaining the required inventory as a basis for future planning decisions. In short these inventories are not required for the current planning process but will be required as part of the NEPA process for site specific, ground disturbing activities prior to their authorization.

It was realized at the time FLPMA was implemented, that it would be impractical and extremely costly to gather every possible bit of information for a planning action which does not authorize any on the ground action which would affect resources. It was also realized that doing inventory on lands that may only be partially proposed for or actually developed, would be a waste of resources, time and funding.

(quoting 43 U.S.C. § 4332(2)(C)). “An EIS is a thorough analysis of the potential environmental impact that ‘provide[s] full and fair discussion of significant environmental impacts and ... inform[s] decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.’” *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 993 (9th Cir. 2004) (citing 40 C.F.R. § 1502.1). An EIS is NEPA’s “chief tool” and is “designed as an ‘action-forcing device to [e]nsure that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government.’” *Or. Natural Desert Ass’n*, 531 F.3d at 1121 (quoting 40 C.F.R. § 1502.1).

An EIS must identify and analyze the direct, indirect, and cumulative effects of the proposed action. This requires more than “general statements about possible effects and some risk” or simply conclusory statements regarding the impacts of a project. *Klamath Siskiyou Wildlands Center v. BLM*, 387 F.3d 989, 995 (9th Cir. 2004) (citation omitted); *Oregon Natural Resources Council v. BLM*, 470 F.3d 818, 822-23 (9th Cir. 2006). Conclusory statements alone “do not equip a decisionmaker to make an informed decision about alternative courses of action or a court to review the Secretary’s reasoning.” *NRDC v. Hodel*, 865 F.2d 288, 298 (D.C. Cir. 1988).

NEPA also requires BLM to ensure the scientific integrity and accuracy of the information used in its decision-making. 40 CFR § 1502.24. The regulations specify that the agency “must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential.” 40 C.F.R. § 1500.1(b). Where there is incomplete information that is relevant to the reasonably foreseeable impacts of a project and essential for a reasoned choice among alternatives, the BLM must obtain that information unless the costs of doing so would be exorbitant or the means of obtaining the information are unknown. 40 C.F.R. § 1502.22. Here the costs are reasonable to obtain information needed to complete the analysis and the BLM must provide additional information in the EIS—through a supplement or revised EIS. Even in those instances where complete data is unavailable, the EIS also must contain an analysis of the worst-case scenario resulting from the proposed project. *Friends of Endangered Species v. Jantzen*, 760 F.3d 976, 988 (9th Cir. 1985) (NEPA requires a worst case analysis when information relevant to impacts is essential and not known and the costs of obtaining the information are exorbitant or the means of obtaining it are not known) citing *Save our Ecosystems v. Clark*, 747 F.2d 1240, 1243 (9th Cir. 1984); 40 C.F.R. § 1502.22.

**A. Purpose And Need and Project Description are Too Narrowly Construed and Unlawfully Segment the Analysis**

Agencies cannot narrow the purpose and need statement to fit only the proposed WCMREEA and then shape their findings to approve that proposal without a “hard look” at the environmental consequences. To do so would allow an agency to circumvent environmental laws by simply “going-through-the-motions.” It is well established that NEPA review cannot be “used to rationalize or justify decisions already made.” 40 C.F.R. § 1502.5; *Metcalf v. Daley*, 214

**CO6-7.** Refer to Response to Comment CO6-5. In addition, in view of the narrow, land allocation only, character of the decision to be made, the BLM does not believe that there is incomplete or unavailable information relevant to the decision-making, within the meaning of 40 CFR 1502.22.

**CO6-8.** CEQ removed the worst-case scenario requirement in 1986. The EIS does analyze how much development, in terms of acreage, might occur if the RFD scenarios were to be completely realized, which discloses significant impacts at that level.

CO6-7

CO6-8



F.3d 1135, 1141-42 (9th Cir. 2000) (“the comprehensive ‘hard look’ mandated by Congress and required by the statute must be timely, and it must be taken objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made.”). As Ninth Circuit noted an “agency cannot define its objectives in unreasonably narrow terms.” *City of Carmel-by-the-Sea v. U.S. Dept. of Transportation*, 123 F.3d 1142, 1155 (9th Cir. 1997); *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F. 3d 900, 812 (9th Cir. 1999). The statement of purpose and alternatives are closely linked since “the stated goal of a project necessarily dictates the range of ‘reasonable’ alternatives.” *City of Carmel*, 123 F.3d at 1155. The Ninth Circuit recently reaffirmed this point in *National Parks Conservation Assn v. BLM*, 586 F.3d 735, 746-48 (9th Cir. 2009) (holding that “[a]s a result of [an] unreasonably narrow purpose and need statement, the BLM necessarily considered an unreasonably narrow range of alternatives” in violation of NEPA).

The purpose behind the requirement that the purpose and need statement not be unreasonably narrow, and NEPA in general is, in large part, to “guarantee[ ] that the relevant information will be made available to the larger audience that may also play a role in both the decision-making process and the implementation of that decision.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989). The agency cannot camouflage its analysis or avoid robust public input, because “the very purpose of a draft and the ensuing comment period is to elicit suggestions and criticisms to enhance the proposed project.” *City of Carmel-by-the-Sea*, 123 F.3d at 1156. The agency cannot circumvent relevant public input by narrowing the purpose and need so that no alternatives can be meaningfully explored or by failing to review a reasonable range of alternatives.

**CO6-9**

The BLM’s purpose of the proposed WCMREEA project is “is to facilitate appropriate development of geothermal, solar, and wind energy in the West Chocolate REEA by identifying the existing resources associated with the land in the West Chocolate REEA and making appropriate land use plan decisions regarding the location, development, and management of those resources, including the identification of reasonable stipulations and measures to mitigate the impacts related to geothermal, solar, and wind energy testing and development.” (DEIS at ES-2) and the need is “pending renewable energy applications, national policy, and Congressional direction.” (DEIS at ES-2)

**CO6-10**

The DEIS notes that an amendment to the CDCA Plan is needed in order to approve the action but does not clearly identify the plan amendment as a part of the action being evaluated, nor provide language as to what that amendment includes. BLM’s purpose and need is narrowly construed to the proposed action itself and a programmatic amendment to the Plan . The purpose and need provided in the DEIS is impermissibly narrow under NEPA for several reasons, most importantly because it forecloses meaningful alternatives review in the DEIS. Because the purpose and need and the alternatives analysis are at the “heart” of NEPA review and affect nearly all other aspects of the EIS, on this basis and others, BLM must revise and re-circulate the DEIS.

In its discussion of the need for renewable energy production the DEIS fails to address risks associated with global climate change in context of including both the need for climate change mitigation strategies (e.g., reducing greenhouse gas emissions) and the need for climate change adaptation strategies (e.g., conserving intact wild lands and the corridors that connect

**CO6-9.** The purpose and need responds to a real world need for renewable energy to meet the nation’s future energy needs, global climate change concerns, and energy self-sufficiency. The action alternatives meet this purpose and need by providing a wide array of management options. One alternative would not allow development, another would continue the requirement of project-by-project plan amendment, and four identify areas, as a planning matter, that would be suitable for renewable energy development subject to site-specific impacts and decision-making.

**CO6-10.** Refer to Response to Comment CO6-9.

them). All climate change adaptation strategies underline the importance of protecting intact wild lands and associated wildlife corridors as a priority adaptation strategy measure.

The habitat fragmentation, loss of connectivity for terrestrial wildlife, and introduction of predators and invasive weed species associated with development in this area may run contrary to an effective climate change adaptation strategy. Siting the proposed action area in the proposed location impacting ecologically functioning ecosystems, occupied habitat and important habitat linkage areas, major washes and other fragile desert resources could undermine a meaningful climate change adaptation strategy with a poorly executed climate change mitigation strategy. Moreover, the action itself will allow for greenhouse gases emissions during construction, manufacturing and operation in particular and the DEIS contains no discussion of ways to avoid, minimize or off-set these emissions although such mitigation is clearly necessary. The way to maintain healthy, vibrant ecosystems is not to fragment them and reduce their biodiversity.

**B. The DEIS Does Not Adequately Describe Environmental Baseline**

BLM is required to “describe the environment of the areas to be affected or created by the alternatives under consideration.” 40 CFR § 1502.15. The establishment of the baseline conditions of the affected environment is a practical requirement of the NEPA process. In *Half Moon Bay Fisherman’s Marketing Ass’n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988), the Ninth Circuit states that “without establishing . . . baseline conditions . . . there is simply no way to determine what effect [an action] will have on the environment, and consequently, no way to comply with NEPA.” Similarly, without a clear understanding of the current status of these public lands BLM cannot make a rational decision regarding proposed project. See *Center for Biological Diversity v. U.S. Bureau of Land Management, et al.*, 422 F. Supp. 2d 1115, 1166-68 (N.D. Cal. 2006) (holding that it was arbitrary and capricious for BLM to approve a project based on outdated and inaccurate information regarding biological resources found on public lands).

The DEIS fails to provide adequate baseline information and description of the environmental setting in many areas including in particular the status of rare plants, animals and communities including desert tortoise, flat-tailed horned lizard, golden eagles, burrowing owls, and important ecological processes.

The baseline descriptions in the DEIS are inadequate because it appears that no surveys were performed at all. As discussed below, because of the deficiencies of the baseline data for the proposed action area, the DEIS fails to adequately describe the environmental baseline. Many of the rare and common but essential species and habitats have incomplete and/or vague on-site descriptions that make determining the proposed project’s impacts difficult at best. Some of the rare species/habitats baseline conditions are totally absent and as a result no impact assessment is provided either. A supplemental document is required to fully identify the baseline conditions of the site, and that baseline needs to be used to evaluate the impacts of the proposed project.

**CO6-11.** There is ample field level evidence, as presented in Section 3.5, 3.6.3.3, and 3.12 that ecosystem processes in the West Chocolate Mountains REEA, such as the upslope-downslope migration of water and wildlife, are already disturbed and modified by the Coachella Canal, former Camp Dunlap, quarries, and recreational hot springs development. Because this is a planning initiative, the information provided, and impacts assessed is necessarily programmatic in character. Until there is more specific information regarding location and technology to be used, specific baseline conditions and potential impacts cannot be identified.

**CO6-11**



C. Failure to Identify and Analyze Direct and Indirect Impacts to Biological Resources

The EIS fails to adequately analyze the direct, indirect, and cumulative impacts of the proposed project on the environment. The Ninth Circuit has made clear that NEPA requires agencies to take a "hard look" at the effects of proposed actions; a cursory review of environmental impacts will not stand. *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1150-52, 1154 (9<sup>th</sup> Cir. 1998). Where the BLM has incomplete or insufficient information, NEPA requires the agency to do the necessary work to obtain it where possible. 40 C.F.R. §1502.22; see *National Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 733 (9<sup>th</sup> Cir. 2001) ("lack of knowledge does not excuse the preparation of an EIS; rather it requires [the agency] to do the necessary work to obtain it.")

CO6-12

Moreover, BLM must look at reasonable mitigation measures to avoid impacts in the DEIS and the BMPs provided in the DEIS are inadequate to mitigate all of the potential site-specific impacts. Even in those cases where the extent of impacts may be somewhat uncertain due to the complexity of the issues, BLM is not relieved of its responsibility under NEPA to discuss mitigation of reasonably likely impacts at the outset. Even if the discussion may of necessity be tentative or contingent, NEPA requires that the BLM provide some information regarding whether significant impacts could be avoided. *South Fork Band Council of Western Shoshone v. DOI*, 588 F.3d 718, 727 (9<sup>th</sup> Cir. 2009).

CO6-13

The lack of comprehensive surveys is particularly problematic. Failure to conduct sufficient surveys prior to environmental analysis of the action also effectively eliminates the most important function of surveys - using the information from the surveys to avoid and minimize harm caused by the project and reduce the need for mitigation. Often efforts to mitigate harm are far less effective than avoiding and preventing the harm in the first place. In addition, without understanding the scope of harm before it occurs, it is difficult to quantify an appropriate amount and type of mitigation.

The DEIS fails to provide all of the information necessary for decisionmakers and the public to adequately review the proposed project. Therefore the impacts cannot be fully analyzed nor mitigation strategies appropriately developed. For this reason alone, a supplemental or revised DEIS needs to be provided and additional alternatives are included (including a preferred alternative) that avoids and reduces the impacts to biological resources.

CO6-14

The DEIS does not discuss that part of the proposed action actually lies within an Unusual Plant Assemblage (UPA) – Unusual Psammophytic Assemblage (CDCA at Map No.6) or that another part lies within an Important Bird Area.<sup>2</sup>

CO6-15

A Supplemental DEIS also should consider and include the final recommendations of the Independent Science Advisors (ISA) that was convened by the Desert Renewable Energy Conservation plan. This eminent group of scientists from many different research backgrounds

<sup>2</sup> <http://ca.audubon.org/iba/ibamaps.php>

**CO6-12.** The EIS includes standard and special stipulations and BMPs that would be considered during site-specific analyses of renewable energy projects in the West Chocolate Mountains REEA, as is appropriate for a planning-level action and analysis. Mitigation measures need only be considered separately if they are not already incorporated into the range of alternatives presented. 40 CFR 1502.14(f). With respect to a planning action, different configurations of allocation of land for different uses, as well as consideration of different suites of particular mitigation measures that might subsequently be applied as appropriate, represents that alternative means of protecting particular resources. Chapter 2 and Appendix G describe these measures, how they would be applied during consideration of individual projects, and how the BLM would consider waivers, exceptions, and modifications to the stipulations during implementation.

**CO6-13.** Refer to Response to Comment CO6-5.

**CO6-14.** Section 3.6.3.1 has been revised to identify the portions of the REEA that fall within an Unusual Plant Assemblage, and Section 4.6.3 will be updated to provide a discussion of potential impacts on any Unusual Plant Assemblage within the REEA. Section 3.7.3.1 has been revised to identify the presence of the Important Bird Area, as designated by the National Audubon Organization, within the REEA. The area will be identified to supplement the description of the environmental setting of the REEA.

**CO6-15.** BLM consulted with the ISA that was convened by the DRECP. As a result of this consultation and other input, additional stipulations and constraints have been incorporated into the FEIS that would limit development within sensitive areas.

laid out some basic *Principles for Siting and Designing Renewable Energy Developments*<sup>3</sup> including:

- **Maximize Use of Already Disturbed Lands**
- **Avoid Soil Disturbance**
- **Avoid Disrupting Geological Processes**

(at page vi – Executive Summary). Clearly the proposed action and alternatives (except the no action alternative) fail to follow these three very basic principles.

#### 1. Desert Tortoise

The desert tortoise has lived in the western deserts for tens of thousands of years. In the 1970's their populations were noted to decline. Subsequently, the species was listed as threatened by the State of California in 1989 and by the U.S. Fish and Wildlife Service in 1990, which then issued a Recovery Plan for the tortoise in 1994. The U.S. Fish and Wildlife Service updated the Recovery Plan in 2011. Current data indicate a continued decline across the range of the listed species<sup>4</sup> despite its protected status and recovery actions.

The original and Updated Recovery Plans both recognize uniqueness in desert tortoise populations in California. This particular subpopulation of tortoise at the proposed project site is part of the Eastern Colorado Recovery unit<sup>5</sup>. Recent population genetics studies<sup>6</sup> have further reconfirmed 1994 Recovery Plan conclusions - the Eastern Colorado Recovery unit was one of the most genetically unique recovery units. While the proposed action site may have low desert tortoise densities, this particular recovery unit has also been documented to have the second highest declines in population over the last two years – 37% decline<sup>7</sup>. The DEIS fails to identify and consider the localized impact to this recovery unit that is already in steep decline.

CO6-16

The DEIS fails to identify the density of desert tortoise on the action area, but does recognize that it contains habitat for the species (DEIS at 4-137).

CO6-17

The species specific BMPs for desert tortoise (DEIS at 2-32 through 2-34) are a start for avoiding and minimizing impacts to this declining species, but clearly are inadequate to mitigate the impacts from potential development.

<sup>3</sup> <http://www.energy.ca.gov/2010publications/DRECP-1000-2010-008/DRECP-1000-2010-008-F.PDF>

<sup>4</sup> [http://www.fws.gov/nevada/desert\\_tortoise/documents/reports/2007\\_Rangewide\\_Desert\\_Tortoise\\_Population\\_Monitoring.pdf](http://www.fws.gov/nevada/desert_tortoise/documents/reports/2007_Rangewide_Desert_Tortoise_Population_Monitoring.pdf)

<sup>5</sup> [http://ecos.fws.gov/docs/recovery\\_plans/1994/940628.pdf](http://ecos.fws.gov/docs/recovery_plans/1994/940628.pdf)

<sup>6</sup> Murphy et al. 2007

<sup>7</sup> [http://www.fws.gov/nevada/desert\\_tortoise/documents/reports/2007\\_Rangewide\\_Desert\\_Tortoise\\_Population\\_Monitoring.pdf](http://www.fws.gov/nevada/desert_tortoise/documents/reports/2007_Rangewide_Desert_Tortoise_Population_Monitoring.pdf)

**CO6-16.** Viable density data for the desert tortoise population within the REEA is not available. However, the presence of desert tortoise, particularly east of the Coachella Canal, is well known and the alternatives have been revised to consider different ways to limit development in this area to avoid impacts to the desert tortoise.

**CO6-17.** Appendix I includes BMPs that can be identified at this time. The species specific desert tortoise measures ensure that the CDFG and USFWS will review and approve relocation/translocation efforts for a specific action. In addition, a measure has been added to the Biological Resources section of Appendix I that will require actions to avoid disturbance within wildlife corridors present in the REEA, to the extent possible. Protective measures for the desert tortoise will be reviewed and expanded as necessary to ensure more effective protective measures that will be in line with current agency standards.



CO6-18

If the DEIS proposes to translocate desert tortoises from the action area, it needs to provide translocation guidance following the recommendations of the ISA<sup>8</sup>. Recent desert tortoise translocations have resulted in significant short-term mortality of 45% or greater<sup>9</sup> and unknown long-term survivorship.

CO6-19

Mechanisms need to be included to assure that any and all mitigation acquisitions will be conserved in perpetuity for the conservation of the desert tortoise. If those acquisitions are within existing Desert Wildlife Management Areas (DWMAs), higher levels of protection than are currently in place for DWMAs need to be put in place. NEPA mandates consideration of the relevant environmental factors and environmental review of "[b]oth short- and long-term effects" in order to determine the significance of the project's impacts. 40 C.F.R. § 1508.27(a) (emphasis added).

CO6-20

The 1:1 mitigation ratio of desert tortoise habitat outside of critical habitat and desert wildlife management area (DWMA) is inadequate to mitigate for the destruction of occupied habitat and should be far higher.<sup>10</sup> Mitigation should specify that acquisition will be appropriate tortoise habitat (occupied or unoccupied) which is currently existing and providing benefits to the species, to off-set the elimination of the proposed project site. However, this strategy is still a net loss of habitat to the desert tortoise, as currently they are using or could use both the mitigation site and the proposed project site. Therefore, in order to aid in recovery of this declining species, at a minimum a 5:1 mitigation ratio should be required as mitigation for the total elimination of occupied desert tortoise habitat on the proposed project site.

CO6-21

If tortoises are relocated or translocated then the relocation and/or translocation areas need to be secured for tortoise conservation in perpetuity, to preclude moving the animals subsequently if additional projects move forward on the relocation or translocation site(s).

CO6-22

The DEIS fails to analyze the impacts from the proposed action to desert tortoise. A clear analysis of impacts must be provided in order to present a clear mitigation strategy

## 2. Flat-tailed Horned Lizard

Declines in populations of and habitat for the flat-tailed horned lizard were noted for decades resulting in a proposed listing of the species in 1993. Several legal challenges have resulted in the U.S. Fish and Wildlife Service reviewing data to determine if the species needs federal Endangered Species Act protection and recently found that it does not warrant listing. However, threats to the flat-tailed horned lizard are abundant in its small geographic range, its specialized and highly fragmented habitat, its sensitivity to anthropogenic effects, its narrow breadth of diet (almost exclusively harvester ants), and the lowest rates of reproduction of all known horned lizards<sup>11</sup>. All of these factors highlight the potential risk of local and regional extinctions for this species.

<sup>8</sup> <http://www.energy.ca.gov/2010publications/DRCP-1000-2010-008/DRCP-1000-2010-008-F.PDF>

<sup>9</sup> Gowan and Berry 2009.

<sup>10</sup> Moilanen et al 2009, Norton 2008

<sup>11</sup> Barrows and Allen. 2009

**CO6-18.** Translocation can have a deleterious effect on desert tortoise populations, particularly if handled incorrectly. As discussed in Section 2.3, the mitigation measures and BMPs included in the DEIS are adopted from the Renewable Energy Action Team (REAT) agencies' (CEC, CDFG, BLM, and USFWS) Best Management Practices and Guidance Manual: Desert Renewable Energy Projects (September 2010). The BLM understands that the BMP guidance was built upon the guidance provided in the Recommendations of Independent Science Advisors for the California Desert Renewable Energy Conservation Plan. The ISA was reviewed for recommended desert tortoise measures, as compared to those in the DEIS, and changes have been made as necessary to ensure consistency.

**CO6-19.** Appendix I-A2 includes a measure that would require the development of a CDFG and USFWS approved plan to include follow-up monitoring activities for relocated desert tortoise species. A statement was added to this measure that requires the set-aside lands to be preserved in perpetuity.

**CO6-20.** No specific mitigation ratios for desert tortoise were given in the DEIS; therefore, it is unclear to what the commentor refers. Appropriate mitigation ratios will be discussed on an action-by-action basis with the resource agencies. Section 2.2.6.5 discusses mitigation ratios for impacts to desert tortoise habitat. Table 2-10 describes the stipulations to protect wildlife habitat, including that of desert tortoise. In Section 2.2.6.5, the FEIS proposes for adoption current management guidance for mitigation ratios of 3:1 for permanent impacts and 1:1 for temporary impacts. Lands east of the Coachella Canal are considered for various percentages for development caps for all activities, which is designed to protect habitat.

**CO6-21.** Refer to Response to Comment CO6-19.

*Continued from previous page.*

**CO6-22.** Refer to Responses to Comments CO5-9, CO5-10, CO6-16, CO6-17, CO6-18, and CO6-19.

In the more than 15 years since this listing was first proposed in 1993, the threats to the flat-tailed horned lizard have only increased. Clearly the lizard is still in decline, and the Flat-tailed Horned Lizard Management Areas, the voluntary conservation agreement that has been in place since 1997, and the Rangewide Management Strategy (2003) are not sufficient to protect the survival of the species or contribute to its recovery. Moreover, threats to the species are increasing.

Damage to habitat from off-road vehicles has continued in all flat-tailed horned lizard areas, including the Yuha Desert, Coachella Valley, West and East Mesas, near the Algodones Dunes, and near Yuma as well as in other flat-tailed horned lizard habitat. There is increasing ORV use of designated routes as well as increased route proliferation in many areas both within the FTHL Management areas and in lizard habitat outside of these areas including the WCMREEA. These ongoing and increased impacts remain one of the greatest threats to species survival. Off-road vehicle use and route proliferation both causes direct loss of habitat and increasingly fragments remaining habitats. Habitat fragmentation is a significant factor in decreasing flat-tailed horned lizard survival and may preclude recovery in many areas. A study of flat-tailed horned lizards and other species within a conservation areas found that edge effects from roads had a significant impact on flat-tailed horned lizard populations up to 150 m from roads (as well as impacts from increased predation).<sup>12</sup>

Several renewable energy projects are already proposed within flat-tailed horned lizard habitat including the permitted project – Imperial Valley solar project - which will impact thousands of acres of flat-tailed horned lizard habitat. This proposal could also further fragment additional habitat for the. In addition, there are at least another five pending right of way applications for both solar and wind projects covering more than 20,000 acres in areas that may include significant lizard habitat some of them adjacent to the management areas.<sup>13</sup> Each of the proposed energy projects will require a new gen-tie power lines that will likely impact lizard habitat and many may also require new substations and other infrastructure that may directly affect lizard habitat. Moreover, these large-scale, single-use projects will displace other multiple uses on public lands and increase the pressure on the FTHL Management areas and other lizard habitat from ORV and other uses.

Loss of habitat due to urban sprawl development and farming was the largest historic threat to the flat-tailed horned lizard. One new sprawl development proposal that may impact flat-tailed horned lizards and their habitat in Imperial County is the Travertine Point which proposes 12,000 housing units on nearly 5,000 acres adjacent to the Salton Sea.<sup>14</sup> In addition, the renewable energy projects, as discussed above, represent another kind of sprawl development that threatens the survival of the species through direct loss of habitat as well as increasing fragmentation of habitat. For this reason, the Center and other conservation groups have advocated for siting the new renewable energy projects on previously degraded sites in the desert

<sup>12</sup> Barrows et al. (2006); *see also* Barrows and Allen (2009) (discussion of habitat loss and high degree of fragmentation in remaining habitats).

<sup>13</sup> See maps and data available on BLM website for renewable energy projects at

[http://www.blm.gov/ca/st/en/fo/cdd/alternative\\_energy.html](http://www.blm.gov/ca/st/en/fo/cdd/alternative_energy.html)

<sup>14</sup> Documents available at <http://www.tlma.co.riverside.ca.us/planning/content/temp/sp375.html>

habitats (including fallowed farmlands) and alternative siting should have been more fully considered here.

The flat-tailed horned lizard has largely been extirpated from the Coachella Valley outside of existing conservation areas and the little remaining habitat in Coachella Valley continues to be lost to sprawl development. Problems with small reserve size, invasive weeds, loss of sand sources, and boundary effects suggest the current Coachella Valley reserve will not ensure the survival of the flat-tailed horned lizard in the Coachella Valley. Barrows et al. (2006) noted the significant "sink" effect along the boundary areas and cautioned "Without immigration from the preserve core, flat-tailed horned lizards may not be able to sustain populations in the boundary region." This same concern regarding boundary effects arises for the management areas where routes already fragment the management areas and where additional development is proposed on the borders. This project could similarly limit the effectiveness of the FTHL Management areas by fragmenting the habitat and cutting off connectivity between areas.

The Sunrise Powerlink powerline project is also directly impacting lizard habitat. This project increases the likelihood that other proposed energy projects will be built in areas that will directly affect the lizard including the proposed project. Powerlines also provide perches for raptors which then prey on the flat-tailed horned lizards, putting further unnatural predation pressures on this declining species.<sup>15</sup>

On-going and increasing impacts to flat-tailed horned lizard habitat near the US-Mexican border in CA and AZ are also of concern particularly off-road vehicle use by border patrol agents (and others). Border Patrol "tire drags" of dirt roads in lizard habitat are also a problem and continue to kill or injure lizards. The spread of non-native mustards and other invasive plants may also threaten flat-tailed horned lizard habitat viability. Even if exotic plant species do not directly change the habitat character or decrease food sources, many of these invasive weed plants can support and spread fire that could kill or injure lizards in an area where fire would naturally be an extremely rare occurrence<sup>16</sup>. The proposed action area and its associated upgrades in transmission could also greatly increase the likelihood of fire and the impacts to the lizard and other wildland resources should have been considered in the DEIS but were not.

Many of the existing and proposed development projects including the proposed action area, as well as ORV use will increase the likelihood of predation of flat-tailed horned lizards further diminishing their numbers and ability to survive. Barrows et al. (2006) found a significant increase predation in their study of boundary effects. Increased development provides new roosting and nesting sites for predators including for example shrikes and kestrels which are known predators of the flat-tailed horned lizard. It is well established that increases in subsidies from human activities which provide additional water sources and food/trash also increase other potential predators such as ravens.

Threats to the flat-tailed horned lizard from climate change are significant for several reasons. First, a recent study shows that desert areas may be some of the first affected by increasing temperature and that the changes may be more rapid in these ecosystems making

<sup>15</sup> Barrows et al. 2006

<sup>16</sup> Brooks et al. 2004



adaptation more difficult<sup>17</sup>. Second, the existing and likely increasing fragmentation of the lizard's habitat by the proposed project and others will make any adaptation through movement across the landscape far more difficult. Thus, the flat-tailed horned lizard although adapted to hot desert environments may nonetheless be significantly impacted by climate change due to its loss of habitat and the constraints on adaptation.

Impacts to the flat-tailed horned lizards and other affected species must be avoided where possible through a robust alternatives analysis and any remaining impacts should be minimized and mitigated. Furthermore, no mitigation for impacts to flat-tailed horned lizard and its habitat are identified. Mechanisms need to be included to assure that any and all mitigation acquisitions will be conserved in perpetuity for the conservation of the flat-tailed horned lizard. If those acquisitions are within existing Management Areas, higher levels of protection than are currently in place for Management Areas need to be put in place. NEPA mandates consideration of the relevant environmental factors and environmental review of "[b]oth short- and long-term effects" in order to determine the significance of the project's impacts. 40 C.F.R. § 1508.27(a) (emphasis added). BLM has clearly failed to do so in this instance with respect to the impact to the flat-tailed horned lizard.

### 3. Rare and Special Status Plants

CO6-23

As mentioned above, shockingly, botanical surveys were not done before the DEIS was prepared. This violates both the inventory requirement of FLPMA and undermines the ability of the agency to fairly undertake any meaningful NEPA analysis. These incomplete data sets preclude evaluation of the impacts, or more importantly the ability to design the project to avoid and minimize impacts. Clearly a supplemental DEIS is required to present these missing data. We highly recommend both spring and fall surveys during years of adequate rainfall in order to capture the annual species presence and distribution.

### 4. Avifauna

#### Migratory Birds

CO6-24

The DEIS fails to address fatalities that have been documented to occur from birds running into reflective surfaces<sup>18</sup>. Adjacent to the proposed project site are agricultural fields, which also attract birds. The DEIS does not quantify the number of birds (rare, migratory or otherwise) that use/traverse the project site through avian point count surveys. McCrary<sup>19</sup> estimated 1.7 birds deaths per week on a 32 ha site with mirrors and a power tower configuration. While it is unclear which technologies will actually be implemented in the WCMREEA, an analysis of the potential impacts should be included in the DEIS.

CO6-25

The failure to provide the baseline data from which to make any impact assessment violates NEPA. This failure to analyze impacts is not only a NEPA violation, but for migratory

<sup>17</sup> Barrows et al 2009

<sup>18</sup> McCrary 1986.

<sup>19</sup> Ibid.

CO6-23. Refer to Response to Comment CO6-5.

CO6-24. Avian fatalities can occur from birds colliding with reflective surfaces, but the number of fatalities cannot be quantified at this time since there is no bird population data for the area. Refer to Response to Comment CO6-5.

CO6-25. The EIS discusses which migratory bird species may be present within the REEA (see Chapter 3.8). It is assumed that these species could be adversely affected by development under the alternatives (see Chapter 4.8). As noted previously, prior to approval of any proposed projects under the West Chocolate Mountains REEA Plan Amendment, the BLM will require additional biological surveys to be conducted that will be used when considering specific projects. At that time, the BLM and other agencies, as well as the public will be able to identify specific mitigation measures to protect these, and other, sensitive resources.

birds, may also lead to a violation of the Migratory Bird Treaty Act, 16 U.S.C. §§ 703 -711, because migratory birds may be “taken” if the proposed project is constructed.

Executive Order 13186 states “Each Federal agency taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations is directed to develop and implement, within 2 years, a Memorandum of Understanding (MOU) with the Fish and Wildlife Service (Service) that shall promote the conservation of migratory bird populations.”<sup>20</sup> Furthermore the EO states that goals pursuant to the MOU include “(3) prevent or abate the pollution or detrimental alteration of the Environment for the benefit of migratory birds, as practicable;” and “(6) ensure that environmental analyses of Federal actions required by the NEPA or other established environmental review processes evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern”.

*Burrowing Owls*

**CO6-26**

No surveys for burrowing owls in the action area are presented in the DEIS, making analysis of impacts impossible. Results from the 2006-7 statewide census identified that the Sonoran desert harbors few Western burrowing owls.<sup>21</sup> Even more worrisome is the documented crash of burrowing owls in their former stronghold in the Imperial Valley. The Imperial Valley has had a recently documented decline of 27% in the past 2 years<sup>22</sup>, resulting in an even more dire state for burrowing owls in California. Because burrowing owls are in decline throughout California, and now their “stronghold” is documented to be declining severely, the burrowing owls in the proposed action area (and on other renewable energy projects) become even more important to species conservation efforts. A supplemental DEIS needs to evaluate the potential impact of the proposed project on this regional distribution of owls.

**CO6-27**

No habitat acquisition for mitigation of impacts to burrowing owls is included in the DEIS. Despite that, current habitat acquisition specifically for burrowing owls is only 6.5 acres per “active burrow” and actually fails to adequately mitigate impacts, especially in the Colorado Desert, as it is outdated agency guidance. Mean burrowing owl foraging territories are 242 hectares in size, although foraging territories for owl in heavily cultivated areas is only 35 hectares<sup>23</sup>. Regardless, the acquisition of only 6.5 acres (2.6 hectares) per “active burrow” fails to mitigate for one bird even if it was relying on a heavily cultivated area. Therefore, additional mitigation acreage needs to be required – calculated using the mean foraging territory size times the number of owls. Using the average foraging territory size for mitigation calculations may not accurately predict the carrying capacity and may *overestimate* the carrying capacity of the proposed action area. The DEIS should not rely on guidance from CDFG from 2003, because that guidance is now out of date in light of identified population declines<sup>24</sup>, a more thorough census of burrowing owls throughout the state and especially the California deserts<sup>25</sup> and additional research on the species habitat<sup>26</sup>. Lastly, because the carrying capacity is tied to

<sup>20</sup> <http://ceq.hss.doe.gov/nepa/regs/eos/eo13186.html>

<sup>21</sup> Wilkerson & Siegel 2011

<sup>22</sup> Manning 2009.

<sup>23</sup> USFWS 2003

<sup>24</sup> Manning 2009

<sup>25</sup> Wilkerson and Siegel 2011

<sup>26</sup> USFWS 2003

**CO6-26.**

Section 4.8.4 currently discusses the potential impacts to burrowing owls as a result of each of the proposed alternatives. A detailed assessment of impacts to burrowing owls will be performed with the consideration of a specific action design, when presence/absence surveys will be required. Appropriate mitigation measures will be developed and added to the action to reduce potential adverse impacts of the action.

**CO6-27.** As discussed in Appendix I-A, BMPs included in the EIS are adopted from the Renewable Energy Action Team (REAT) agencies’ (CEC, CDFG, BLM, and USFWS) Best Management Practices and Guidance Manual: Desert Renewable Energy Projects. Attachment II of the Best Management Practices and Guidance Manual includes the current survey protocols and mitigation recommendations from CDFG. The recommendations in Attachment II do include habitat acquisition ratios to permanently protect foraging habitat per pair or unpaired resident birds to offset the loss of foraging and burrowing habitat. Specific mitigation ratios will be determined in consultation with CDFG on an action-by-action basis. The Species Specific: Burrowing Owl portion of the Biological Resource section of Section Appendix I-A2 has been revised to appropriately reference the documents included in Attachment II of the Best Management Practices and Guidance Manual.



habitat quality, language should be included that mitigation lands that are acquired for burrowing owl be native habitats on undisturbed lands, not cultivated lands, which are subject to the whims of land use changes. The long-term persistence of burrowing owls lies in their ability to utilize natural landscapes, not human-created ones.

While “passive relocation” does minimize immediate direct take of burrowing owls, ultimately the burrowing owls’ available habitat is reduced, and “relocated” birds are forced to compete for resources with other resident burrowing owls and may move into less suitable habitat, ultimately resulting in “take”. Any passive relocation of burrowing owls should require seasonal monitoring of those birds to document post-relocation activities and should explicitly include long-term monitoring of passively relocated birds in order to evaluate survivorship of passively relocated birds. Additionally no requirement for constructed burrows is identified as mitigation for the destruction of impacted burrows. Other projects in the area have been required to construct two burrows for every burrowing owl burrow destroyed.

#### *Golden Eagle*

While the DEIS refers to the Bald and Golden Eagle Protection Act, which imposes strict limitations on take of eagles and the Final Rule on Eagle Act Take Permits (74 FR 48635), which establishes a “no net loss” standard for eagles, no further guidance on how best to comply with these mandates (e.g., no requirement for a Bald and Golden Eagle Protection Plan)

CO6-28

Again, the DEIS fails to document the number of golden eagle territories that overlap the proposed action area. Additionally, the DEIS/R fails to make any determination on the significance of impacts to golden eagles from the operation and maintenance.

We recommend that the DEIS be revised and re-circulated in order to reconsider impacts to Golden Eagle more thoroughly using recommendations and analysis by eagle experts who perform surveys as well as peer review by qualified eagle experts. Such a reconsideration would allow the BLM to fully evaluate the site and whether this area is appropriate for siting projects or may have unacceptable, unmitigable risks to Golden Eagle. 11

#### *5. Badger*

CO6-29

No surveys for badgers were done in the proposed action area, although it provides good habitat for them (DEIS at 3-99). Literature on the highly territorial badger indicates that badger home territories range from 340 to 1,230 hectares<sup>27</sup>. Therefore, the proposed project could displace *at least* one badger territory. While surveys prior to construction are clearly essential, even passive relocation of badgers into suitable habitat may result “take”. Excluding badger from the site is likely to cause badgers to move into existing badger’s territory. The recirculated or supplemental DEIS needs to include an actual analysis of impacts to badgers from the proposed project.

#### *6. Desert Kit Foxes*

<sup>27</sup> Long 1973, Goodrich and Buskirk 1998

**CO6-28.** There is no data on golden eagles. Due to the presence of military flight activities at the CMAGR, it is not possible to get helicopters into this area to perform golden eagle surveys. Section 4.8.4 discusses the potential impacts to golden eagles as a result of development that might occur under each of the proposed alternatives. A detailed assessment of impacts to golden eagles will be performed with the consideration of a specific action design. Appropriate mitigation measures will be developed and added to the action to reduce specific potential adverse impacts of the action.

**CO6-29.** Section 4.8.4 discusses the potential impacts to American badgers as a result of development that might occur under each of the proposed alternatives. A detailed assessment of impacts to American badgers will be performed with the consideration of a specific action design. Appropriate mitigation measures will be developed and added to the action to reduce potential adverse impacts of the action.

CO6-30

The DEIS fails to mention the desert kit fox, much less provide data on the presence or absence of the species on site or the locations of natal and other types of dens. Desert kit foxes are "protected furbearing mammals" under California Code of Regulations, Title 14, section 460 and may not be "taken" at any time. As such the DEIS fails to analyze the impacts to this species. The revised or supplemental DEIS should identify the density of kit foxes on the proposed project site, including natal and other dens. If passive relocation is identified as an avoidance strategy, the DEIS must evaluate if suitable habitat occurs nearby and is not already occupied by existing kit foxes.

7. Cryptobiotic soil crusts and Desert Pavement and Air Quality

The proposed project is located in the Imperial County Air Quality Management District area, which is already in non-attainment for PM-10 particulate matter<sup>28</sup>. Other activities on public lands including ORV use and increasing soil destruction from ORVs are already significant contributors of PM-10 in this area. Construction of projects further increases emissions of these types of particles because of the disruption and elimination of potentially thousands of acres of cryptobiotic soil crusts. Cryptobiotic soil crusts are an essential ecological component in arid lands. They are the "glue" that holds surface soil particles together precluding erosion, provide "safe sites" for seed germination, trap and slowly release soil moisture, and provide CO<sub>2</sub> uptake through photosynthesis<sup>29</sup>.

CO6-31

While the DEIS repeatedly acknowledges that loss of soil crusts would result in increased surface runoff, it does not describe the on-site cryptobiotic soil crusts community, provide a map as to where they are located, or identify how much will be disturbed (or suggest a disturbance cap). The impact to air quality from disturbance of these soil crusts is not analyzed.

CO6-32

Likewise there is no mention if desert pavements occur in the proposed action area. Desert pavement is formed through a complex natural process and helps to keep desert soils in place. They are easily disrupted and loss of desert pavement can also lead to increased PM<sub>10</sub> emissions as well as increase sediment in surface runoff.

CO6-33

The DEIS fails to address the cumulative impacts to soils and air quality due to destruction of soil structure and also fails to explain how additional PM-10 contributions due to soil disturbance within the proposed zone could be off-set or mitigated in this area that is already in non-attainment.

8. Wildlife Movement Corridors

CO6-34

The DEIS identifies that the proposed action area "could also disrupt any wildlife corridors in an area and affect migratory corridors for special status wildlife populations" (DEIS at 4-146), however no information on where those wildlife or migratory corridors actually are located.

<sup>28</sup> <http://www.mdaqmd.ca.gov/index.aspx?page=214>

<sup>29</sup> Belnap 2003, Belnap et al 2003, Belnap 2006, Belnap et al. 2007

**CO6-30.** There is no available data on kit fox presence or absence. It is assumed that kit fox density is higher in the REEA than in the Mojave.

**CO6-31.** Soil associations, complexes, and units are discussed in Section 3.4.3. Soil associations are shown in Figure 3.4-1. Impacts to soils are discussed in Section 4.4.4 and impacts to air quality from fugitive dust are assessed in Section 4.4.1.

**CO6-32.** Refer to Response to Comment CO6-31.

**CO6-33.** Cumulative impacts to soils and air quality are addressed in Section 4.20.

**CO6-34.** Text has been added to Section 3.8.3.2 that will identify specific wildlife corridors in the REEA.



CO6-35

Additionally at least part of the action area is located within an "essential connectivity area"<sup>30</sup> for wildlife identified by the California Essential Habitat Connectivity Project.

9. Failure to Identify Appropriate Mitigation

Because the DEIS fails to provide adequate identification and analysis of impacts, inevitably, it also fails to identify adequate mitigation measures for the project's environmental impacts. "Implicit in NEPA's demand that an agency prepare a detailed statement on 'any adverse environmental effects which cannot be avoided should the proposal be implemented,' 42 U.S.C. § 4332(C)(ii), is an understanding that an EIS will discuss the extent to which adverse effects can be avoided." *Methow Valley*, 490 U.S. at 351-52. Because the DEIS does not adequately assess the proposed action's direct, indirect, and cumulative impacts, its analysis of mitigation measures for those impacts is necessarily flawed. The DEIS must discuss mitigation in sufficient detail to ensure that environmental consequences have been fairly evaluated." *Methow Valley*, 490 U.S. at 352; *see also Idaho Sporting Congress*, 137 F.3d at 1151 ("[w]ithout analytical detail to support the proposed mitigation measures, we are not persuaded that they amount to anything more than a 'mere listing' of good management practices"). As the Supreme Court clarified in *Robertson*, 490 U.S. at 352, the "requirement that an EIS contain a detailed discussion of possible mitigation measures flows both from the language of [NEPA] and, more expressly, from CEQ's implementing regulations" and the "omission of a reasonably complete discussion of possible mitigation measures would undermine the 'action forcing' function of NEPA."

Although NEPA does not require that the harms identified actually be mitigated, NEPA does require that an EIS discuss mitigation measures, with "sufficient detail to ensure that environmental consequences have been fairly evaluated" and the purpose of the mitigation discussion is to evaluate whether anticipated environmental impacts *can be avoided*. *Methow Valley*, 490 U.S. at 351-52. As the Ninth Circuit recently noted: "[a] mitigation discussion without at least *some* evaluation of effectiveness is useless in making that determination." *South Fork Band Council of Western Shoshone v. DOI*, 588 F.3d 718, 727 (9th Cir. 2009) (emphasis in original).

CO6-36

Here, the DEIS does not provide a full analysis of possible mitigation measures to avoid or lessen the impacts of the proposed project and therefore the BLM cannot properly assess the likelihood that such measures would actually avoid the impacts of the proposed zone.

D. Impacts to Water Resources— Surface and Groundwater Water Impacts

As the DEIS notes, the proposed action will impact a large number of washes and ephemeral streams and is on an alluvial fan (DEIS at 3-130). These areas provide important habitat values that will be lost if construction occurs on them. Moreover, the loss of natural surface water flows and the re-direction of surface waters will have significant impacts to the hydrological systems that remain in tact.

<sup>30</sup> Spencer et al. 2010.

**CO6-35.** Section 3.6.3.3 has been revised to identify the presence of the Essential Connectivity Areas, as designated by the California Essential Habitat Connectivity Project, within the REEA. The area will be identified to supplement the description of the wildlife corridors within the REEA.

**CO6-36.** Appendix I-A identifies BMPs that would be required for a project.

Ephemeral and intermittent streams make up over 81% in the arid and semi-arid southwest (Arizona, New Mexico, Nevada, Utah, Colorado and California). These streams provide a variety of ecosystem services including

- landscape hydrologic connections;
- stream energy dissipation during high-water flows to reduce erosion and improve water quality;
- surface and subsurface water storage and exchange;
- ground-water recharge and discharge;
- sediment transport, storage, and deposition to aid in floodplain maintenance and development;
- nutrient storage and cycling;
- wildlife habitat and migration corridors;
- support for vegetation communities to help stabilize stream banks and provide wildlife services;
- and water supply and water-quality filtering<sup>31</sup>.

CO6-37

Yet the DEIS fails to evaluate the impact of the proposed project on the ephemeral and intermittent streams and the ecosystem processes that they provide both on and off of the proposed project site. The revised or supplement DEIS will need to include an analysis of these important issues.

CO6-38

**Reserved Water Rights:** As BLM is well aware, the California Desert Protection Act ("CDPA") expressly reserved water rights for wilderness areas that were created under the act. 16 U.S.C. §410aaa-76.<sup>32</sup> The CDPA reserved sufficient water to fulfill the purposes of the Act which include to "preserve unrivaled scenic, geologic, and wildlife values associated with these unique natural landscapes," "perpetuate in their natural state significant and diverse ecosystems of the California desert," and "retain and enhance opportunities for scientific research in undisturbed ecosystems." 103 P.L. 433, Sec. 2. The priority date of such reserved water rights is 1994 when the CDPA was enacted. Therefore, at minimum, the BLM must ensure that use of water for the likely future projects in this proposed zone (and cumulative projects) *over the life of the proposed zone* will not impair those values in the wilderness that depend on water resources (including perennial, seasonal, and ephemeral creeks, springs and seeps as well as any riparian dependent plants and wildlife). This is of particular concern with regard to this zone which is being planned for significant geothermal development. While some newer technologies use less water than older geothermal plants, all geothermal plants use significant water – a scarce and critical resource in the CDCA.

CO6-39

The DEIS should have addressed the federal reserved water rights afforded to the public to protect surface water sources on all public lands affected by the proposed project. Pursuant to Public Water Reserve 107 ("PWR 107"), established by Executive Order in 1926, government

<sup>31</sup> Levick et al. 2008.

<sup>32</sup> The reservation excluded two wilderness areas with regard to Colorado River water. See 103 P.L. 433; 108 Stat. 4471; 1994 Enacted S. 21; 103 Enacted S. 21, SEC. 204. COLORADO RIVER. ("With respect to the Havasu and Imperial wilderness areas designated by subsection 201(a) of this title, no rights to water of the Colorado River are reserved, either expressly, impliedly, or otherwise.")

**CO6-37.** The DEIS discusses typical impacts to surface water hydrology from renewable energy project, including to ephemeral and intermittent streams, and water quality in Section 4.5.3. However, a quantitative assessment of direct and indirect impacts to these systems is beyond the scope of this EIS, as these impacts can only be quantified on a site-by-site basis.

**CO6-38.** There are no wilderness areas within the REEA that would be affected. The closest wilderness areas to the REEA are the Indian Pass Wilderness Area and the Pichaco Peak Wilderness Area located 35 miles east of the town of Niland, California.

**CO6-39.** The FEIS has been revised to identify the federal reserved water rights afforded to the public in accordance with Public Water Reserve 107, as established by Executive Order 1926, and will identify if any of the alternatives have the potential to affect the water sources and/or the public use of federal reserved water rights.



**CO6-40.** Refer to Response to Comment CO6-39.

**CO6-41.** Refer to Response to Comment CO6-39.

**CO6-42.** Refer to Response to Comment CO6-39.

**CO6-43.** The FEIS has been revised to include a discussion about the potential for creation of new water rights as they relate to the alternatives, and it identifies the mechanisms by which water rights used in the West Chocolate Mountains REEA will be maintained within the REEA.

agencies cannot authorize activities that will impair the public use of federal reserved water rights.

**CO6-40**

PWR 107 creates a federal reserved water right in water flows that must be maintained to protect public water uses. *U.S. v. Idaho*, 959 P.2d 449,453 (Idaho, 1998) *cert. denied*; *Idaho v. U.S.* 526 U.S. 1012 (1999); *Cappaert v. U.S.*, 426 U.S. 128, 145 (1976). PWR 107 applies to reserve water that supports riparian areas, reserve water that provides flow to adjacent creeks and isolated springs that are “nontributary” or which form the headwaters of streams. *U.S. v. City & County of Denver*, 656 P.2d 1, 32 (Colo., 1982). Accordingly, BLM cannot authorize activities that will impair the public use of reserved waters covered by PWR 107.

**CO6-41**

BLM must examine the federal reserved water rights within the area affected by the proposed action and other proposed and recently approved projects in this area that will use significant amounts of groundwater. This examination must include a survey of the any water sources potentially affected by the proposed project. The BLM must ensure that any springs, seeps, creeks or other water sources on public land and particularly within the wilderness areas are not degraded by the proposed projects’ use of water and continue meet the needs of the existing wildlife and native vegetation that depend on those water resources.

**CO6-42**

PWR 107 also protects the public lands on which protected water sources exist. Accordingly, BLM should not only consider the impact of projects on water sources present on public lands, but also the direct and indirect impacts of the proposed project on the surrounding lands (including military lands) as well as impacts to the ecosystem as a whole.

**CO6-43**

The Center is concerned that the discussion in the DEIS is also incomplete because it fails to address any potential water rights that could arguably be created from use of groundwater by future projects in this zone. While the Center recognizes that this issue may involve somewhat complex legal issues, at minimum, the BLM must address this question and ensure that no water rights will be created by private parties on public lands and that any water rights that could *arguably* be created will be conveyed back to the BLM owner and run with the land at the end of any project within the proposed zone. The BLM must provide a mechanism to insure that in no case will the use of water for future projects in this proposed zone on these public lands result in water rights accruing to any private party that it could arguably convey to any third party for use *off-site or on-site* in the future. Moreover, BLM should ensure that no future projects in this zone are allowed to use groundwater associated with projects within the zone off-site for any purpose.

**E. The DEIS Fails to Adequately Identify, Analyze and Off-set Impacts to Air Quality and GHG Emissions.**

Federal courts have squarely held that NEPA requires federal agencies to analyze climate change impacts. *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 508 F.3d 508 (9th Cir. 2007). As most relevant here, NEPA requires consideration of greenhouse gas emissions (“GHG emissions”) associated with all projects and, in order to fulfill this requirement the agencies should look at all aspects of the project which may create greenhouse gas emissions including operations, construction, and life-cycle emissions

from materials. Where a proposed project will have significant GHG emissions, the agency should identify alternatives and/or mitigation measures that will lessen such effects.

**CO6-44**

As part of the NEPA analysis federal agencies must assess and, wherever possible, quantify or estimate GHG emissions by type and source by analyzing the direct operational impacts of proposed actions. Assessment of direct emissions of GHG from on-site combustion sources is relatively straightforward. For the proposed zone, energy consumption for future projects from manufacturing, transportation and construction, will be the major source of GHGs. The indirect effects of the future projects may be more far-reaching and will require careful analysis. Within this category, for example, the BLM should evaluate, GHG and GHG-precursor emissions associated with construction, electricity use, fossil fuel use, water consumption, waste disposal, transportation, the manufacture of building materials (lifecycle analysis), and land conversion. Moreover, because many project may undermine or destroy the value of carbon sinks, including desert soils, projects may have additional indirect effects from reduction in carbon sequestration, therefore both the direct and quantifiable GHG emissions as well as the GHG effects of destruction of carbon sinks should be analyzed.

**CO6-45**

The discussion of greenhouse gas emissions ("GHG") in the DEIS notes that the geothermal and solar projects will produce GHGs primarily from construction. There is no discussion of reducing these emissions by using more efficient equipment or vehicles.

**CO6-46**

The DEIS also fails to adequately address other air quality issues including PM10 both during construction and operation which is of particular concern in this area which is a nonattainment area for PM10 and ozone. It is clear that extensive on-site grading will result in significant amounts of bare soils and increased PM10 may be introduced into the air by wind and that the use of the area during construction and operations will lead to additional PM10 emissions from the site. Although some mitigation measures are suggested they are not specific and enforceable and because the extent of the impact has not been adequately addressed as an initial matter there is no way to show that the mitigation measures proffered will reduce the impacts to less than significance.

**CO6-47**

BLM fails to identify any significant GHG emissions and therefore does not provide for avoidance, minimization, or mitigation. BLM has also failed to include the loss of carbon sequestration from soils in its calculations or to provide a lifecycle analysis of GHG emissions that include manufacturing and disposal. Moreover, it is undisputed that in the near-term GHG emissions will increase emissions during construction, and in the manufacturing and transportation of the components. BLM fails to consider any alternatives to the project that would minimize such emissions or to require that these near-term emissions be off set in any way.

**CO6-48**

Although the future projects in the proposed zone may reduce GHG's overall over a long-term time frame they will also emit GHGs in the short term during construction and due to the manufacturing process that are not accounted for or off-set, BLM completely fails to explore this aspect of the impacts of the project in the DEIS in violation of NEPA.

**CO6-44.** The FEIS is a programmatic level environmental document that considers a variety of kinds of renewable energy development that could be developed over a large area of BLM managed land. Although no specific projects are currently proposed, the environmental analysis looks at a variety of representative projects. The greenhouse gas analysis calculates estimated emissions for these representative projects utilizing known data taken from previously constructed projects. Data that would be required to conduct greenhouse gas emissions associated with water use, electricity use, waste disposal, transportation, land conversion, carbon sequestration, and the life cycle of building materials is not yet available for the specific projects that may be developed in the future. Any estimate as to the greenhouse gas emissions from these activities would be speculative at best. The FEIS also considers, in the Affected Environment section, the impact of global climate change on resources in the study area for this planning initiative.

**CO6-45.** Specific measures to be implemented are listed in Appendix I-A1 of the FEIS. Measures 6 through 10 address the use of efficient vehicles and equipment. Measure 6 ensures compliance with the California Air Resource Board (CARB) and EPA emission standards; Measure 7 requires the use of construction equipment that meets applicable Tier 2 and Tier 3 California Emission Standards; and Measure 8 recommends that Tier 4 standards are met as well, when they come into effect.

**CO6-46.** As stated in Section 4.1.4 of the FEIS, a dust abatement plan for project construction and operations will be prepared and implemented for each project in cooperation with the ICAPCD, incorporating practices and protocols established by the CARB. These include frequent dust suppressant applications on unpaved roads and construction areas, limits on traffic speeds, and covering



*Continued from previous page.*

trucks hauling soils, among others. In addition, wind erosion control techniques would be applied during construction. As stated previously, specific measures to be implemented are listed in Appendix I-A1 of the FEIS. These measures, along with measures required by the local air quality management district, will be carried forward and expanded upon in each project-specific environmental analysis.

**CO6-47.** Refer to Response to Comment CO6-44.

**CO6-48.** Refer to Response to Comment CO6-44.

**CO6-49.** The Cumulative Impacts section has been revised to include these projects.

**F. The Analysis of Cumulative Impacts in the DEIS Is Inadequate**

A cumulative impact is “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” 40 C.F.R. § 1508.7. The Ninth Circuit requires federal agencies to “catalogue” and provide useful analysis of past, present, and future projects. *City of Carmel-By-The-Sea v. U.S. Dept. of Transp.*, 123 F.3d 1142, 1160 (9<sup>th</sup> Cir. 1997); *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 809-810 (9<sup>th</sup> Cir. 1999).

“In determining whether a proposed action will significantly impact the human environment, the agency must consider ‘[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment.’ 40 C.F.R. § 1508.27(b)(7).” *Oregon Natural Resources Council v. BLM*, 470 F.3d 818, 822-823 (9<sup>th</sup> Cir. 2006). NEPA requires that cumulative impacts analysis provide “some quantified or detailed information,” because “[w]ithout such information, neither courts nor the public . . . can be assured that the Forest Service provided the hard look that it is required to provide.” *Neighbors of Cuddy Mountain v. United States Forest Service*, 137 F.3d 1372, 1379 (9<sup>th</sup> Cir. 1998); see also *id.* (“very general” cumulative impacts information was not hard look required by NEPA). The discussion of future foreseeable actions requires more than a list of the number of acres affected, which is a necessary but not sufficient component of a NEPA analysis; the agency must also consider the actual environmental effects that can be expected from the projects on those acres. See *Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 995-96 (9<sup>th</sup> Cir. 2004) (finding that the environmental review documents “do not sufficiently identify or discuss the incremental impact that can be expected from each [project], or how those individual impacts might combine or synergistically interact with each other to affect the [] environment. As a result, they do not satisfy the requirements of the NEPA.”) Finally, cumulative analysis must be done as early in the environmental review process as possible, it is not appropriate to “defer consideration of cumulative impacts to a future date. ‘NEPA requires consideration of the potential impacts of an action before the action takes place.’” *Neighbors*, 137 F.3d at 1380 quoting *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1313 (9<sup>th</sup> Cir. 1990) (emphasis in original).

CO6-49

The DEIS identifies some of the cumulative projects but not all including the permitted Imperial Valley Solar project, the Sunrise Powerlink and the Ocotillo Sol project. Other proposed projects include Tule Wind and Ocotillo Express. For the projects that are identified the DEIS does not meaningfully analyze the cumulative impacts to resources in the California desert from the many proposed projects (including renewable energy projects, transmission, and others). Moreover, because the initial identification and analysis of impacts is unfinished, the cumulative impacts analysis cannot be complete. For example, because the identification of potentially occurring rare plants on site is unfinished and incomplete, the cumulative impacts are also therefore inadequate.

The DEIS also fails to consider all reasonably foreseeable impacts in the context of the cumulative impacts analysis. See *Native Ecosystems Council v. Dombek, et al*, 304 F.3d 886 (9<sup>th</sup>

Cir. 2002) (finding future timber sales and related forest road restriction amendments were “reasonably foreseeable cumulative impacts”). The DEIS also fails to provide the needed analysis of how the impacts might combine or synergistically interact to affect the environment in this valley or region. See *Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 995-96 (9th Cir. 2004).

The NEPA regulations also require that indirect effects including changes to land use patterns and induced growth be analyzed. “Indirect effects,” include those that “are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include *growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.*” 40 C.F.R. s.1508.8(b) (emphasis added). See *TOMAC v. Norton*, 240 F. Supp.2d 45, 50-52 (D.D.C. 2003) (finding NEPA review lacking where the agency failed to address secondary growth as it pertained to impacts to groundwater, prime farmland, floodplains and stormwater run-off, wetlands and wildlife and vegetation); *Friends of the Earth v. United States Army Corps of Eng’rs*, 109 F. Supp.2d 30, 43 (D.D.C. 2000) (finding NEPA required analysis of inevitable secondary development that would result from casinos, and the agency failed to adequately consider the cumulative impact of casino construction in the area); see also *Mullin v. Skimmer*, 756 F. Supp. 904, 925 (E.D.N.C. 1990) (Agency enjoined from proceeding with bridge project which induced growth in island community until it prepared an adequate EIS identifying and discussing in detail the direct, indirect, and cumulative impacts of and alternatives to the proposed Project); *City of Davis v. Coleman*, 521 F.2d 661 (9th Cir. 1975) (requiring agency to prepare an EIS on effects of proposed freeway interchange on a major interstate highway in an agricultural area and to include a full analysis of both the environmental effects of the exchange itself and of the development potential that it would create).

Among the cumulative impacts to resources that have not been fully analyzed are impacts to desert tortoise, impacts to golden eagles, and impacts to water resources, soils and air quality. The cumulative impacts to the resources of the California deserts has not been fully identified or analyzed, and mitigation measures have not been fully analyzed as well.

#### **G. The EIS’ Alternatives Analysis is Inadequate**

NEPA requires that an EIS contain a discussion of the “alternatives to the proposed action.” 42 U.S.C. §§ 4332(C)(iii),(E). The discussion of alternatives is at “the heart” of the NEPA process, and is intended to provide a “clear basis for choice among options by the decisionmaker and the public.” 40 C.F.R. §1502.14; *Idaho Sporting Congress*, 222 F.3d at 567 (compliance with NEPA’s procedures “is not an end in itself . . . [but] it is through NEPA’s action forcing procedures that the sweeping policy goals announced in § 101 of NEPA are realized.”) (internal citations omitted). NEPA’s regulations and Ninth Circuit case law require the agency to “rigorously explore” and objectively evaluate “all reasonable alternatives.” 40 C.F.R. § 1502.14(a) (emphasis added); *Env’tl. Prot. Info. Ctr. v. U.S. Forest Serv.*, 234 Fed. Appx. 440, 442 (9th Cir. 2007). “The purpose of NEPA’s alternatives requirement is to ensure agencies do not undertake projects “without intense consideration of other more ecologically sound courses of action, including shelving the entire project, or of accomplishing the same result by entirely different means.” *Env’tl. Defense Fund, Inc. v. U.S. Army Corps of Engrs.*, 492

F.2d 1123, 1135 (5th Cir. 1974). An agency will be found in compliance with NEPA only when "all reasonable alternatives have been considered and an appropriate explanation is provided as to why an alternative was eliminated." *Native Ecosystems Council v. U.S. Forest Serv.*, 428 F.3d 1233, 1246 (9th Cir. 2005); *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1228-1229 (9th Cir. 1988). The courts, in the Ninth Circuit as elsewhere, have consistently held that an agency's failure to consider a reasonable alternative is fatal to an agency's NEPA analysis. See, e.g., *Idaho Conserv. League v. Mumma*, 956 F.2d 1508, 1519-20 (9th Cir. 1992) ("The existence of a viable, but unexamined alternative renders an environmental impact statement inadequate.").

If BLM rejects an alternative from consideration, it must explain why a particular option is not feasible and was therefore eliminated from further consideration. 40 C.F.R. § 1502.14(a). The courts will scrutinize this explanation to ensure that the reasons given are adequately supported by the record. See *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 813-15 (9th Cir. 1999); *Idaho Conserv. League*, 956 F.2d at 1522 (while agencies can use criteria to determine which options to fully evaluate, those criteria are subject to judicial review); *Citizens for a Better Henderson*, 768 F.2d at 1057.

**CO6-50**

Here, BLM too narrowly construed the project purpose and need such that the DEIS did not consider an adequate range of alternatives to the proposed project. The alternatives analysis is inadequate even with the inclusion of the alternative project types configuration and a no development alternative. At a minimum an alternative that would locate the eastern boundary on the west side of the Coachella canal should be considered, because it would reduce impacts to species and their habitat that have already sustained and will sustain additional habitat losses in other parts of their ranges from renewable energy development. Additional feasible alternatives should be considered which would avoid all of desert tortoise habitat as well as alternatives that would have looked at alternative sites. In addition, a phased alternative should have been included which could allow some portions of the project that have the fewest impacts to move forward while also affording the project proponent time to find and acquire permits for more appropriate sites for one or more additional phases of the project reconfigured on other BLM lands or on previously degraded disturbed lands in this area (for example such as the abandoned farmlands in Desert Center) and also to explore other off-site alternatives.

**CO6-51**

The document did not consider a distributed renewable energy alternative. The BLM should have also looked alternative siting on previously degraded lands such as nearby farmlands, distributed solar alternatives, and other alternatives that could avoid impacts of the proposed project as well as impacts of the associated transmission line gen-tie and the new substation. In addition, as discussed above, the BLM should have looked at alternatives for construction and operations that would reduce GHG emissions through offsets or other means.

**CO6-52**

The BLM failed to consider any off-site alternative zone that would significantly reduce the impacts to biological resources including occupied desert tortoise habitat, key movement corridors, golden eagles, and others. Because such alternatives are feasible, on this basis and other the range of alternatives is inadequate. The Center urges the BLM to revise the DEIS to adequately address a range of feasible alternatives and other issues detailed above and then to re-circulate a revised or supplemental DEIS for public comment.

**CO6-50.** In response to comments received on the DEIS from the USFWS, significant special stipulations have been proposed pertaining to the area east of the Coachella Canal, an area believed by the USFWS to be high quality tortoise habitat. In addition, the BLM is considering a development cap in this area to protect future desert tortoise habitat.

**CO6-51.** The EIS does include consideration of solar and geothermal development on non-BLM jurisdiction lands in the REEA.

Refer to Response to Comment CO5-6 on distributed generation.

**CO6-52.** Refer to Response to Comment CO6-50.

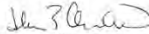


The existence of these and other feasible but unexplored alternatives shows that the BLM's analysis of alternatives in the DEIS is inadequate.

**III. Conclusion**

Thank you for your consideration of these comments. In light of the many omissions in the environmental review to date, we urge the BLM to revise and re-circulate the DEIS or prepare a supplemental DEIS before making any decision regarding the proposed plan amendment and renewable energy area or zone. In the event BLM chooses not to revise the DEIS and provide adequate analysis, the BLM should reject the plan amendment for a renewable energy zone in this area. Please feel free to contact us if you have any questions about these comments or the documents provided.

Sincerely,

  
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September 29, 2011

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**Comments of BrightSource Energy, Inc. on the  
West Chocolate Mountain Draft Environmental Impact Statement**

BrightSource Energy, Inc. ("BrightSource") is pleased to provide its comments on the West Chocolate Mountains Renewable Energy Evaluation Area ("West Chocolate REEA") Draft Environmental Impact Statement ("DEIS") and Draft Amendment to the California Desert Conservation Area ("CDCA") Plan. These comments have been submitted via U.S. mail and sent via email to wcm\_comments@blm.gov.

The DEIS represents an admirable effort by the U.S. Bureau of Land Management ("BLM") to envision a plan for developing a variety of renewable energy projects within the West Chocolate REEA. We commend the BLM for its work, and the agency's other efforts to facilitate appropriate development of renewable energy generation facilities. However, we have serious concerns about certain erroneous assumptions that the DEIS relies upon with respect to both technology and reliability of land assessment data, and, as a result, regarding the potential conclusions that the DEIS then draws. Its attempts to discriminate between solar technology types are unjustified given information available today, and cannot withstand the test of time as technology characteristics change. Although the DEIS is a useful compilation of information about the REEA in general, and can provide guidance as to areas that appear relatively more or less promising for solar development, the data and analyses it relies on would require much more work to provide the specific roadmap it intends to offer for environmentally responsible and technically and economically feasible utility-scale solar project development.<sup>1</sup>

<sup>1</sup> See DEIS at ES-2 ["The purpose of the proposed action is to facilitate appropriate development of geothermal, solar, and wind energy in the West Chocolate REEA by identifying the existing resources associated with the land in the West Chocolate REEA and making appropriate land use plan decisions regarding the location, development, and management of those resources. . . ."].

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The Final Environmental Impact Statement, Record of Decision for the West Chocolate REEA, and CDCA Plan Amendment will be very useful, provided that their determinations are better aligned with reasonably well-established, justified facts and can accommodate changing information about both technologies and land suitability.<sup>2</sup> These features will ensure that the documents can withstand challenge. They will also enable these documents to give due effect to the valuable work BLM has done to date.

Other aspects of the DEIS have BrightSource's support without amendment. BLM's commitment to prohibiting development in truly high-conflict areas should help expedite the permitting process by avoiding hours lost to processing applications that present too many challenges to ever be approved. BrightSource also appreciates BLM's effort to eliminate speculative applications by segregating public lands potentially suitable for renewable energy project development and implementing thoughtful competitive procedures for solar energy applications that could ensure the best use of those public lands. With the improvements suggested in these comments, the Final Record of Decision and CDCA Plan Amendment for the Chocolate Mountains REEA would provide extremely useful tools for facilitating environmentally-responsible development.

#### I. Background

As explained in the BLM's Notice of Availability, the purpose of the DEIS is to support BLM's decision to amend the CDCA Plan to make available up to "20,762 acres of BLM-managed surface lands (acquired lands included) for solar, wind and geothermal testing and development in a renewable energy evaluation area located near Niland, California." 76 Fed. Reg. 38,680, 38,681 (July 1, 2011). To fulfill its obligation to take a hard look at the environmental impacts of its proposed action under the National Environmental Policy Act ("NEPA"), BLM considered six alternative proposals for developing a high-level renewable energy development plan for this region. These alternatives are as follows:

- Alternative 1: No Action/No CDCA Plan Amendment

<sup>2</sup> Indeed, given that the DEIS recognizes that "portions of the West Chocolate REEA may be determined to be unsuitable for geothermal development" as a result of site-specific analyses, and presuming that the same logic would be applied to reduce the acreage available for solar development, it seems only fair that site-specific evaluations could alternatively result in the identification of *additional* lands that are suitable for development. (See, e.g., DEIS at 4-40, 4-62, 4-70, *passim*.)



- Alternative 2: No Development/CDCA Plan Amendment (to prohibit renewable energy development in the REEA)
- Alternative 3: Renewable Energy Development Emphasis
- Alternative 4: Geothermal Development Only
- Alternative 5: Solar Energy Development Emphasis with Moderate Geothermal Development and No Wind Development
- Alternative 6: Geothermal Development Emphasis with Moderate Solar Development and No Wind Development

The alternatives, as a general matter, provide a reasonable array of potential choices for management of the West Chocolate REEA. However, we do not see any justification whatsoever for considering an alternative that would allow only a single technology category.

## II. Comments on the DEIS

As explained in more detail below, the tools used to identify the appropriate areas for solar development in the REEA, while useful to provide general guidance as to priority areas, do not provide a proper basis for defining appropriate, or inappropriate, sites for new solar projects. In particular, because they rely on imprecise data to identify solar resources, they do not address the need for site-specific assessments of renewable energy resources and environmental impact, and fail to properly take transmission constraints and reasonably-projected buildouts into consideration. The DEIS' projections as to realistic development potential cannot reasonably be relied upon for these reasons. For those alternatives that would permit utility-scale solar energy generation projects within these identified areas (Alternatives 3, 5, and 6), the methodologies used to further discriminate based on technology classes is more seriously flawed, due to improper assumptions about the characteristics of solar projects drawn from examples that are wrongly assumed to be representative of the technologies within those classes. Rather than impose development limits based on erroneous presumptions about the characteristics of projects within technology categories—characteristics, we must add, that even if accurate today will be subject to rapid change during the relevant time periods—the CDCA Plan Amendment should impose technology-agnostic standards (e.g., provide for water use limits instead of limiting development, as proposed in Alternative 6, to certain technology types that are presumed, potentially falsely, to use less water than others). BrightSource would also like to take this opportunity to note other assumptions in the DEIS that are not well justified, and should be corrected.



A. Technology assumptions relied upon in the DEIS are outdated and result in an unwarranted prejudice against the development of future solar thermal projects

CO7-1

The approach used by the DEIS to create "reasonably foreseeable development" ("RFD") scenarios for solar, which discriminate between classes of solar technologies using characteristics derived from examples that are arbitrarily and capriciously assumed to be "typical" for concentrated solar power ("CSP") and photovoltaic ("PV") projects (DEIS at 4-5 and App. B), is flawed. These flaws are compounded by the use of a set of hypothetical 500 megawatt (MW) solar trough projects (frequently referred to in the DEIS simply as a "solar thermal project") and a block of over 100 50 MW PV projects to project impacts of utility-scale solar development projects. (See, e.g., DEIS at 4-12, 4-16, and App. B.) Since actual development will consist of a variety of project sizes and technology preferences whose environmental impacts will vary substantially from the hypothetical units, these arbitrary and capricious assumptions would impose unjustified limits, referred to as "estimated constraints", on energy development. (See DEIS at 2-1.) Furthermore, because the analysis is based on two arbitrary examples that are not fairly representative of the projects within broader technology categories, the DEIS' conclusions are themselves unjustified, arbitrary and capricious.

CO7-2

BrightSource's chief concern with the analysis in the DEIS is that the assumptions about solar energy generation technologies relied upon in the alternatives analysis and elsewhere are outdated and result in unwarranted prejudice against the development of future solar thermal projects. In particular, the alternatives that would allow solar project developments (Alternatives 3, 5, and 6) all would prohibit the development of CSP projects in "areas where slope is greater than 1 percent", while permitting the development of PV projects in areas where slopes are as great as five percent. (DEIS at 2-15, 2-19, 2-20.) However, for CSP technologies such as BrightSource's LPT power tower, slopes up to five percent can be accommodated today, and the elimination of such lands for CSP development in the future would be an arbitrary and capricious bar that would not serve the public policy objectives underlying the DEIS. Alternative 6 further presumes, incorrectly, that "thermal plants that would require high water usage in the desert (i.e., solar trough and power tower) would not be allowed due to the amount of water required." (DEIS at 2-20.) In fact, water assumptions cannot be made so generically on the basis of technology even today, and are subject to change. BrightSource's LPT technology, deploying dry cooling, uses far less water than conventional power plants, and scarcely more than PV or dish plants that would use water to clean panels or reflective surfaces

CO7-3

**CO7-1.** Language has been modified in the Plan Amendment/EIS to include the use of CPV within the PV family of technology. It should be noted, however, that RFD scenarios are not meant to be prescriptions regarding which technologies could be used, but rather analytical tools that cover possible future development for impact assessment. This is consistent with the methodology used in the Solar Programmatic EIS.

**CO7-2.** Refer to Response to Comment CO7-1.

**CO7-3.** Refer to Response to Comment CO7-1.





(if such cleaning is not undertaken, performance may degrade and yield less energy per acre, which would increase demands on land use—contrary to BLM’s policy aims). Alternative 6 would further prohibit solar energy development on “land where structures would result in airspace conflicts” (DEIS at 2-20); however, we have found that airspace conflicts cannot always be generically assessed, and that individual site assessments can demonstrate that development near airports and military bases is fully appropriate and desirable (e.g., with increased tower height, land use for power tower applications can be decreased, yielding far higher renewable energy output per acre than other utility-scale solar technologies). Any development limitations should be imposed through uniform standards with respect to impacts, not disparate treatment of technology classes based on broad assumptions about technology that do not accurately reflect the characteristics of the great variety among individual projects within such classes today, let alone the changes in those characteristics over time as technologies develop.

CO7-4

In establishing technology-based development prohibitions, the DEIS fails to take into account the rapid evolution in solar energy generation technologies. More advanced technologies are constantly emerging as designs are refined during the permitting process, projects are constructed, and more research and development takes place. Generic assumptions based on application data from a limited universe of individual projects, particularly data that is several years old, do not represent the current capabilities of the technologies. (DEIS at App. B, pp. 14, 16, 18, 21 [citing Solar Millennium’s (now Solar Trust of America’s) Updated Plan of Development, Amargosa – Farm Road Solar Project. BLM Land Use Application, File #NVN-84359. Revised Submission November 26, 2008].) For example, the assumption that power tower technologies require nine acres per MW is based on information that is already outdated and would not serve as a proper basis for a final determination, at least as far as BrightSource’s proprietary power tower technology is concerned. (DEIS at App. B, p. 9.)

CO7-5

As described in its most recent Application for Certification, filed with the California Energy Commission (“CEC”) in August 2011, BrightSource’s technology innovation has enabled it to reduce the size of its solar field by increasing its tower height, enabling tighter configuration of the heliostat (mirror) arrays used to reflect the sun’s light onto a central boiler placed at the top of a power tower. This innovation will allow BrightSource to generate more MW per acre compared to past projects and reduce the environmental impacts of future projects. BrightSource has also significantly reduced its water needs and continues to research ways to lessen, and ideally eliminate, mirror washing demands. Likewise, the generic presumptions as to quantity of grading needed for CSP and resulting impacts on vegetation (DEIS at App. B, p. 10; *see also* 4-107, 4-399) are simply wrong relevant to BrightSource’s technology, which enables grading to

**CO7-4.** As noted in Response to Comment CO7-1, BLM would not prohibit any specific type of solar technology. Each proposal would be considered on its own merits.

**CO7-5.** Comment noted. Refer to Response to Comment CO7-1.





CO7-6

be limited to a relatively small fraction of the project footprint, and leaves native contours and vegetation largely intact across a very high percentage of the site. As written, the DEIS suggests that all site vegetation would be cleared during construction, and thus fails to recognize the efforts made by developers to design projects that instead leave much of the vegetation intact. (DEIS at ES-18, 4-399.) Finally, BrightSource's proprietary technology and low-impact design has never been limited to areas where slopes are one percent or less and is currently capable of accommodating slopes of up to five percent.

CO7-7

Instead of *presumed* characteristics regarding technologies, BLM should focus on limits based on *actual* characteristics of importance to protect the natural resources under its jurisdiction and allow developers determine what is technically feasible and economically practicable for their particular technologies within those impact limitations. Limitations on the percentage of a site that can be graded or the extent of grading could, for example, be used to ensure a proper pairing of technologies and landscapes—and prevent grading by a developer of a technology that BLM wrongly presumes would not have to grade. Similarly, rather than ban solar trough and power tower technologies because of their presumed higher water demands, Alternative 6 should establish maximum groundwater use amounts—and should further allow facilities that cannot meet the water use standards to procure water from outside sources. The outright prohibition on power tower technology with respect to airspace issues should also be removed from Alternative 6 and replaced with, at most, a requirement that the developer obtain a letter of non-opposition from the nearby military installations and the Federal Aviation Authority, as has been successfully done elsewhere. The DEIS should not presume that the military will oppose specific power tower projects proposed for development in the REEA.

CO7-8

B. Based on the lack of site-specific studies, BLM should not, at this time, make general determinations about where solar energy generation projects should, and should not, be sited

CO7-9

As proposed, BLM's criteria for identifying appropriate sites for solar development in the Chocolate Mountains REEA are not robust enough to provide a basis for hard lines between developable lands and off-limits lands. In identifying acceptable sites for solar projects BLM considered only (1) known or estimated resource potential (insolation); (2) environmental constraints on development (including slope, critical habitat areas, proximity to hydrologic features, and groundwater resources); and (3) availability of land. (DEIS at 2-1.) This approach omits consideration of one of the most critical considerations in site selection: proximity to available transmission. Designating development zones in areas that lack access to load or

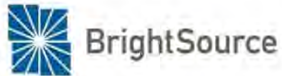
**CO7-6.** Given that each project would be different, it is impossible at this programmatic analysis stage to determine how much clearing would be needed. Various solar energy technologies would require less clearing than others and discussions have been modified to reflect this possibility. There is no objective criteria that specify how much or how little clearing would be required, on average, by technology type.

**CO7-7.** There are no data to support any prescribed limits on water use at this time. Each proposal will be considered on its own merits, including how much and where proponents propose to acquire water for their projects.

Refer to Responses to Comments FA2-8, FA2-18, and FA2-22.

**CO7-8.** In the FEIS, wording has been clarified to allow consideration of power tower technology. However, it is noted that significant concerns have been raised by the military regarding this technology in proximity to its operations at the CMAGR (Comment FA4-1).

**CO7-9.** The EIS uses the same criteria that have been used in the Solar Programmatic EIS being prepared concurrently by the BLM. These criteria were developed in close coordination with industry and other interest groups to portray the current state of the technology.



CO7-10

transmission creates the false perception that the solar resources in the REEA will be put to good use. In addition, although the analysis considers environmental constraints to a degree, it does not, as noted above, map habitats for purposes of identifying areas that have both desirable solar resources and limited conflicts with biological resources. The discussion of impacts of hypothetical projects slotted for only 17,163 acres on resources found within the entire 59,059 acre REEA is of limited usefulness in pinpointing appropriate development sites. (See DEIS at 2-4 to 2-11, 2-16 to 2-17.)

Moreover, the heavy reliance on the National Renewable Energy Laboratory ("NREL") solar resource estimates as a basis for plotting appropriate development sites is misguided. The NREL estimates are only what they claim to be—estimates. The satellite insolation data used to generate the NREL maps, while useful as general guides, are not reliable for actual on-the-ground insolation, and vary by as much as 30%. Solar developers consequently must undertake site-specific meteorological analyses to determine actual resource value when selecting project locations. The NREL information can therefore only be relied on for identifying *potential* development sites, but cannot provide a basis for drawing concrete development zone boundaries. Development projects need freedom to adjust to site-specific technical and environmental data, at the developers' initiative or in response to stakeholder concerns. Recognizing that a site-specific evaluation of potential sites throughout the REEA would be too resource-intensive and expensive to reasonably accommodate, we simply ask that BLM use existing data, augmented by ongoing assessments, to identify initial priority areas for development that are not exclusive. Again, at this time BLM does not have sufficient data on the solar and biological resources to say with certainty that the 17,163 acres identified for solar development encompass the most appropriate sites within the REA for this development.

C. The RFD scenarios for solar are not realistic

CO7-11

The RFD scenarios contemplated in the DEIS, whereby developers would permit and construct either 500 MW of CSP projects (five solar trough, three power tower, or three dish engine) or over 100 individual 50 MW PV projects, (see DEIS at 2-17 and App. B), is neither realistic nor consistent with current trends—unless BLM intends to specify a technology type in the CDCA Amendment, which would be unreasonable, and which BLM does not appear to intend to do. Such an approach is not justified, especially in light of the facts that (1) the analysis only evaluates, on an abstract level, the impacts of a solar thermal trough project, which has unique impacts on the environment that are not representative of all CSP (see, e.g., DEIS at 4-12, 4-22, 4-

**CO7-10.** Comment noted. Refer to Response to Comment FA2-45.

**CO7-11.** These numbers were used for analytical purposes; they are not designed to be a prescription of possible development. It is further noted that far less development is likely to occur because of limits in transmission availability, project economics, financing limitations, resource conflicts, and other site-specific issues.





125 [discussing hazardous materials]), and (2) larger PV projects are under permitting and construction, appear to have favorable economic profiles relative to smaller projects, and can have substantial impacts that are not well characterized by the DEIS, such as the extensive grading that can be, but is not necessarily, a feature of large PV projects. Once again, the need to specify impacts, rather than project types, is paramount, and any reliance on technology presumptions will surely over time be proven to have been severely mistaken and a serious error.

**CO7-12**

Specifically, trough projects are unique because they frequently utilize hazardous heat transfer fluids, which can have several environmental impacts. In addition, to accommodate the long parabolic mirrors and concrete pads on which they are based, as well as to facilitate the movement of the fluid through the trough system, grading requirements for trough systems can be more severe, and generally eliminate native contours vegetation within the project footprint. Such projects also have more difficulty adjusting plant layouts to avoid environmentally sensitive areas. BrightSource's proprietary power tower technology, in contrast, does not present these same issues. BrightSource would oppose any alternative that would, without a technology-specific analysis, prevent the development power tower technology, or CSP in general, based on the expected impacts of a hypothetical solar trough plant.

D. Certain mitigation measures and development criteria proposed as part of the Plan Amendment require further explanation

**CO7-13**

The mitigation measures proposed in the DEIS will provide useful guidance in the face of uncertain post-development impacts. One particular mitigation measure, however, requires further refinement. Specifically, the first mitigation measure for desert tortoise impacts requires that developers "[c]onduct project activities when desert tortoises are inactive (typically November 1 to March 14), to minimize impacts to roaming individuals." (DEIS at 2-32.) We presume that this measure would not apply to projects that have cleared the solar field of tortoises and fenced in the project development area. We also presume that BLM did not mean to suggest that active construction or other activities incompatible with the protection of tortoises hibernating within their burrows might proceed during the tortoises' inactive months in areas that have not been cleared.

**CO7-12.** Comment noted. The issues raised have been noted in the appropriate sections of the FEIS.

**CO7-13.** The BLM will apply all appropriate mitigation measures raised through consultations with the USFWS on site-specific proposals.

CO7-14. The document has been revised accordingly.



CO7-14

In addition, the development criteria that would impose a requirement to prepare a Water Supply Assessment under SB-610 (*see, e.g.*, DEIS 2-15) needs to be more nuanced. Specifically, because solar thermal projects come within the CEC's exclusive jurisdiction, this requirement should call for a Water Supply Assessment *or its equivalent* so that it recognizes as valid any water assessment the CEC might require.

III. Conclusion

BrightSource sincerely appreciates BLM's efforts to facilitate appropriate solar energy development in the Chocolate Mountains REEA through the preparation of the DEIS. With the important additional work and modifications we have requested above, we believe the DEIS can serve a critically useful role in proposing potential priority areas for development. With this level of information, however, there is not sufficient information to draw some of the proposed definitive conclusions suggested in the DEIS—and the use of technology-specific, rather than characteristic-specific, limitations is unjustified today and will be only more so in the future, as technology changes. We thank the BLM for its consideration of these comments.



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## **Comments and Responses**

### **Individuals**

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July 12, 2011

US Dept. of Interior  
U.S. Bureau of Land Management  
3200/1610(P) CA D050  
1661 S. 4<sup>th</sup> St.  
El Centro, CA 92243

Dear Margaret L. Goodro, Field Manager:

IND1-1

The people of California entrusted the State's public lands to Bureau of Land Management for proper management – not to deprive them of enjoyable use and access of said lands.

IND1-2

In response to your July 2011 letter re the Chocolate Mountains, I urge you to carve off a piece of the area for rockhounds.

We rockhounds have been cut off from public lands to accommodate foreign owned mines, the military, and our Senior Citizens have been discriminated against due to relocations of ~~tipal~~ heads and closing of access roads.

Remedy this.

Give us some use of areas in the Chocolates so we can teach our children (and grandchildren) in field geology. So we can get some enjoyment of our public lands.

Thank you.

Very truly yours,

*D. M. Davis*  
D.M. DAVIS  
Attorney at Law

DMD/aw

IND1-1. Comment noted.

IND1-2. The West Chocolate Mountains REEA DEIS evaluates the impact of opening the REEA for geothermal leasing and wind and solar energy ROWs. Dedicating a portion of the REEA to rockhounding is a Lands and Realty and Recreation Program function and would be handled in the Field Office's Resource Management Plan (RMP).



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**IND2-1.** Comment noted. Section 4.15.4 discusses impacts from possible renewable energy projects to OHV activities.

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**From:** Themistersnoid@aol.com  
**Sent:** Friday, September 23, 2011 10:48 AM  
**To:** BLM\_CA\_West\_Chocolate\_Mountain\_EIS  
**Subject:** WEMO EA--Mojave

**IND2-1**

Please consider the needs of the OHV RIDERS, thank you, Robert Jump

**From:** Douglas Nguyen [douglasdn@gmail.com]  
**Sent:** Friday, September 23, 2011 8:16 AM  
**To:** BLM\_CA\_West\_Chocolate\_Mountain\_EIS  
**Subject:** WEMO EA  
To Whom It May Concern,

**IND3-1**

I am writing to respectfully ask that no more restrictions be put in place for motorized vehicles in the WEMO area.

**IND3-2**

My club and I always follow the Tread Lightly policy. We respect the land and it's inhabitants (plants and animals) and do what we can to help protect and keep trails open. We have adopted two trails in the San Bernardino National Forest to help the US Forest Service clean, make safe, and maintain them.

**IND3-3**

If there is anything we can do to keep WEMO motorized vehicle areas protected, yet open, please let us know. We want the area protected *for* use, not *from* use!

Thank you very much for your time and considerations.

Douglas Nguyen, DDS  
Westminster, CA

**IND3-1.** Comment noted.

**IND3-2.** Comment noted.

**IND3-3.** Comment noted.

**From:** Joyce Dillard [dillardjoyce@yahoo.com]  
**Sent:** Thursday, September 29, 2011 10:46 AM  
**To:** BLM\_CA\_West\_Chocolate\_Mountain\_EIS  
**Subject:** Comments to BLM/CA/ES-2011-13+1793 DEIR West Chocolate Mountains Renewable Energy Evaluation Area due 9.29.2011

Comments to BLM/CA/ES-2011-13+1793 DEIR West Chocolate Mountains Renewable Energy Evaluation Area due 9.29.2011

The economic value of this project can only be viable if all elements are incorporated in regulated power plans under the jurisdiction of the Federal Energy Regulatory Commission FERC, Western Area Power Administration WAPA, North American Reliability Corporation NERC, Southern California Public Power Authority SPPA, California Independent System Operator (ISO) Balancing Authority, California Public Utilities Commission CPUC, and/or California Energy Commission CEC. There may be other agencies involved not listed here.

Without incorporation into the system, then this EIS must identify the funding sources and timeframe for execution. Key is the disclosure of any taxpayer funding needed. Also key is the disclosure of any legislative or regulatory changes needed.

**IND4-1**

With the recent outage in the San Diego area, the age and reliability of the existing infrastructure should be addressed also.

This area does not provide baseline energy, but supplemental energy. Those aspects need to be evaluated. The potential Geothermal baseline energy needs to be evaluated to the capacity.

**IND4-2**

Water supply needs to be more clearly defined as supply is unreliable.

**IND4-3**

Delta issues need to be addressed, as that supply will determine any expansion. Colorado River supplies will also determine any expansion. The Delta Stewardship Council through the Delta Plan is tasked to determine the State's needs, which includes this area.

The role of the Metropolitan Water District's MWD ability to deliver these supplies should be addressed. All other authorities, which you have listed and their ability to deliver should be addressed. MWD is important because it is the supplier of many of the end users of the grid these projects will supply.

The grid and its capacity should be addressed as to each project. Though a project may be listed (Project Amendment) will it be used.

Wildlife, plant life and animal life are part of the ecosystem. The destruction of that system may not be conducive for the watersheds throughout the State.

**IND4-4**

Earthquakes and their long-term effects should be evaluated as well as the cost involved and funding sources needed (and identified).

**IND4-5**

The responsible local municipalities should be identified as the responsibilities of

**IND4-1.** Comment noted.

**IND4-2.** As noted in Responses to Comments FA2-22, FA2-23, and FA2-24, revisions to the FEIS have more clearly defined water demand for each of the alternatives. Any alternatives that do not appear to have available water to support their demand will be noted and considered accordingly in the decision making process.

**IND4-3.** Comment noted; however, the State of California's water needs are beyond the scope of this EIS.

**IND4-4.** Geologic hazards were assessed in Section 4.3.4 of the EIS.

**IND4-5.** Comment noted.

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disaster recovery including funding sources.

Without that reality of a functioning system, this area expansion may not be feasible in the long-term.

Coal, as a replacement energy source, for any downtime of this system, should be addressed in all forms of supply, grid incorporation, reliability and environmental effects.

Operation and maintenance costs and responsibilities and funding sources should be identified.

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